

PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
UNION CARBIDE CORPORATION / ST. CHARLES OPERATION
ENERGY SYSTEMS UNIT
PROPOSED PART 70 AIR OPERATING PERMIT MODIFICATION

The LDEQ, Office of Environmental Services, is accepting written comments on proposed Part 70 air operating permit modification for Union Carbide Corporation / St. Charles Operation, P.O. Box 50, Hahnville, LA 70057-0050 for the Energy Systems Unit. **The facility is located at 355 Hwy 3142, Gate 28, Taft, St. Charles Parish.**

Union Carbide Corp. requested the addition of a new diesel-fired generator for the Emergency Operations Center (EOC), Emission Point 3106. The generator will only be used when there is a loss of power and for required testing and maintenance. It will be an emergency engine that is subject to NSPS Subpart IIII. The generator addition constitutes a Title I modification which triggers significant modification procedures, including public notice of the proposed permit, as per LAC 33:III.531.A.2.c and LAC 33:III.527.A.2.a.

The Energy Systems Unit currently operates under PSD-LA-590 issued September 22, 1995, as well as TV Permit No. 2343-V0 and PSD-LA-707, both issued June 27, 2005.

Estimated emissions in tons per year are as follows:

Pollutant	Before	After	Change
PM ₁₀	180.96	181.00	+0.04
SO ₂	14.30	14.33	+0.03
NOx	2541.92	2542.44	+0.52
CO	1967.32	1967.43	+0.11
VOC	111.14	111.18*	+0.04
Sulfuric Acid	0.01	0.01	-

* Includes 8.50 TPY of LAC 33:III Chapter 51 Toxic Air Pollutants.

A technical review of the working draft of the proposed permit was submitted to the facility representative and the LDEQ Surveillance Division. Any remarks received during the technical review will be addressed in the "Worksheet for Technical Review of Working Draft of Proposed Permit". All remarks received by LDEQ are included in the record that is available for public review.

Written comments, written requests for a public hearing or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests must be received by 12:30 p.m., Wednesday, January 30, 2008.** Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The application, proposed Part 70 air operating permit modification, environmental assessment questions and statement of basis are available for review at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at www.deq.louisiana.gov.**

An additional copy may be reviewed at St. Charles Parish Library, East Regional Branch, 100 River Oaks Drive, Destrehan, LA.

Inquiries or requests for additional information regarding this permit action should be directed to L. Dugas, LDEQ, Air Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3127.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at deqmailistrequest@la.gov or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

Permit public notices including electronic access to the proposed permit and statement of basis can be viewed at the LDEQ permits public notice webpage at www.deq.louisiana.gov/apps/pubNotice/default.asp and general information related to the public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at http://www.doa.louisiana.gov/oes/listservpage/ldeq_pn_listserv.htm.

All correspondence should specify AI Number 2083, Permit Number 2343-V1, and Activity Number PER20070040.

Publication date: December 27, 2007



DEPARTMENT OF ENVIRONMENTAL QUALITY

KATHLEEN BABINEAUX BLANCO

GOVERNOR

MIKE D. McDANIEL, Ph.D.

SECRETARY

Certified Mail No.

Activity No.: PER20070040

Agency Interest No. 2083

Sarah Thigpen
Responsible Care Leader
Union Carbide Corporation
St. Charles Operations
P. O. Box 50
Hahnville, LA 70057-0050

RE: Part 70 Operating Permit; Union Carbide Corp - St Charles Operations
Union Carbide Corp, Taft, St. Charles Parish, Louisiana

Dear Ms. Thigpen:

This is to inform you that the permit modification for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the 27th of June, 2010, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and agency interest number cited above should be referenced in future correspondence regarding this facility.

Done this _____ day of _____, 2008.

P. Notice

Assistant Secretary
CCB:LND
c: EPA Region VI

ENVIRONMENTAL SERVICES

: PO BOX 4313, BATON ROUGE, LA 70821-4313

P:225-219-3181 F:225-219-3309

WWW.DEQ.Louisiana.GOV

**AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**

Union Carbide Corp – St. Charles Operations, Energy Systems Unit

Agency Interest No.: 2083

Activity No.: PER20070040

**Union Carbide Corp
Taft, St. Charles Parish, Louisiana**

I. Background

Union Carbide Corp, - St. Charles Operations, Energy Systems Unit, is an existing facility supplying utilities in the form of steam, electricity, fuel gas and water to the plant's manufacturing units. The Union Carbide Corp - St. Charles Operations began operation before 1969. The Energy Systems Unit currently operates under PSD-LA-590 issued September 22, 1995 for the Cogeneration Unit, as well as TV Permit No. 2343-V0 and PSD-LA-707 (for Boilers, Emission Points 3104 and 3105), both issued June 27, 2005.

This is a Part 70 operating permit modification for the unit.

II. Origin

A permit application and Emission Inventory Questionnaire dated November 9, 2007, was submitted by Union Carbide Corp. requesting a Part 70 operating permit modification.

III. Description

The Energy System Unit supplies utilities in the form of steam, electricity, fuel gas and water to the plant's manufacturing units. The fuel utilized at the complex is fuel gas, a combination of natural gas and off-gas from some UCC processes.

The original TV permitted the addition of two new boilers, Emission Points 3104 and 3105. The new boilers are fueled by plant fuel/natural gas and have low NOx burners. These boilers replaced Boilers 30 and 31 previously removed. The addition of these two new boilers was significant for increases in CO emissions and required Prevention of Significant Deterioration review (PSD). Emissions of pollutants regulated under PSD were controlled by implementing Best Available Control Technology (BACT). In this case, BACT for the Boilers' CO emission was good combustion practice.

This permit modification includes the following updates:

- Site Remediation MACT has been incorporated into the permit.
- UCC is requesting the removal of NESHAP Subpart DDDDD requirements from the permit as the regulation has been vacated.
- The addition of a new diesel-fired generator for the Emergency Operations Center (EOC), Emission Point 3106. It will only be used when there is a loss of power and for required testing and maintenance. It will be an emergency engine that is subject to NSPS Subpart IIII. The generator addition triggers Title I and the permit will need to be public noticed.

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp – St. Charles Operations, Energy Systems Unit

Agency Interest No.: 2083

Activity No.: PER20070040

Union Carbide Corp
Taft, St. Charles Parish, Louisiana

- The addition of a diesel tank for the EOC generator as insignificant activity.

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	180.96	181.00	+0.04
SO ₂	14.30	14.33	+0.03
NO _X	2541.92	2542.44	+0.52
CO	1967.32	1967.43	+0.11
VOC	111.14	111.18	+0.04
Sulfuric Acid	0.01	0.01	-

VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
n-Butanol	0.06	0.06	-
Ethylene Oxide	0.01	0.01	-
Formaldehyde	8.43	8.43	-
Total	8.50	8.50	-

Other VOC (TPY): 102.68

IV. Type of Review

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) did not apply to this minor mod. The facility is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

V. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg.

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp – St. Charles Operations, Energy Systems Unit

Agency Interest No.: 2083

Activity No.: PER20070040

Union Carbide Corp

Taft, St. Charles Parish, Louisiana

8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive-use, by any person of any such credible evidence or information.

VI. Public Notice

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on XXXXXXXX; and in the *St. Charles Herald-Guide*, Boutte, on XXXXXX, and submitted to the St. Charles Parish Library Hahnville Branch, on XXXXXX. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on XXXXXX. The draft permit was also submitted to US EPA Region VI on XXXXX. All comments will be considered.

VII. Effects on Ambient Air

Dispersion Model Used: ISCST3 Version : 02035 Rural mode

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Air Quality Standard (NAAQS)
CO (10% capacity)	1-hour	73.74	2000
	8-hour	24.23	500

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp – St. Charles Operations, Energy Systems Unit
Agency Interest No.: 2083
Activity No.: PER20070040
Union Carbide Corp
Taft, St. Charles Parish, Louisiana

VIII. General Condition XVII Activities

Work Activity	Schedule	Emission Rates - tons				
		PM ₁₀	SO ₂	NO _X	CO	VOC
1. General Maintenance	52 times/yr	-	-	-	-	4.55
2. Fuel Gas Vent Down	2 times/yr	-	-	-	-	0.05
3. Piping, Purging, & Clean Up	52 times/yr	-	-	-	-	3.77
4. Boiler (Startup/Shutdown Emissions)	2 times/yr	-	-	-	-	4.50

IX. Insignificant Activities

ID No.:	Description	Citation
1153	GTG Lube Oil Reservoir – East	LAC 33:III.501.B.5.A.3.
1154	GTG Lube Oil Reservoir – West	LAC 33:III.501.B.5.A.3.
1155	STG Lube Oil Reservoir	LAC 33:III.501.B.5.A.3.
-	CTG Lube Oil Reservoir	LAC 33:III.501.B.5.A.3.
-	CSTG Lube Oil Reservoir	LAC 33:III.501.B.5.A.3.
-	Two Nalco Surgard 1700 (1500 gal)	LAC 33:III.501.B.5.A.3.
1159	50% Caustic Soda Storage Tank	LAC 33:III.501.B.5.A.4.
-	(2) Two Brine Tanks (25% NaCl / 75% H ₂ O)	LAC 33:III.501.B.5.A.4.
3100	Fuel Analyzer Vent #1	LAC 33:III.501.B.5.A.9.
3101	Fuel Analyzer Vent #2	LAC 33:III.501.B.5.A.9.
3102	Fuel Analyzer Vent #3	LAC 33:III.501.B.5.A.9.
3103	Fuel Analyzer Vent #4	LAC 33:III.501.B.5.A.9.
3107	EOC Dispatch Emergency Generator Tank (1244 gallons)	LAC 33:III.501.B.5.A.3.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations
 Agency Interest No.: 2083
 Activity No.: PER20070040
Union Carbide Corp
Taft, St. Charles Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.	Description	LAC 33:III Chapter									
		5▲	9	11	13	15	21	29*	51*	53*	56
UNF006	Facility Wide										
EQT 334	Energy Systems Unit	1	1	1	1	1	1	1	1	1	1
EQT 335	185A – No. 1 Water Treating Sulfuric Acid Storage Tank										1
EQT 336	1150 – GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack – East	2	1	1	2						1
EQT 337	1151 – GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack – West	2	1	1	2						1
EQT 338	1152 – RO Sulfuric Acid Storage Tank D-4248										1
EQT 339	3104 – No. 3 Steam Plant East Package Boiler	2	1	1	3						1
FUG006	3105 – No. 3 Steam Plant West Package Boiler	2	1	1	3						1
EQT847	196T – Fugitives						1				1
	3106 -- EOC Dispatch Emergency Generator (Diesel)		1	1	2						2

* The regulations indicated above are State Only regulations.

▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.C.6 citations, except when the requirement found in the “Specific Requirements” report specifically states that the regulation is State Only.

KEY TO MATRIX

- 1 - The regulations have applicable requirements that apply to this particular emission source.
- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
 - 2 - The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
 - 3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.
- Blank – The regulations clearly do not apply to this type of emission source.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations
 Agency Interest No.: 2083
 Activity No.: PER20070040
Union Carbide Corp
Taft, St. Charles Parish, Louisiana

X. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID No.:	Description	40 CFR 60 NSPS						40 CFR 61						40 CFR 63 NESHAP						40 CFR			
		A	Kb	Db	Dc	GG	III	NN	NN	RRR	A	M	V	FF	A	YY	DDD	GGG	64	68	72	82	
AI-2083	Facility Wide										1	1	1	1			1	1	1	1	1	1	
UNF006	Energy Systems Unit	1														1							
EQT 334	185A – No. 1 Water Treating Sulfuric Acid Storage Tank																						
EQT 335	1150 – GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack – East										1	1	1	1									
EQT 336	1151 – GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack – West										1	1	1	1									
EQT 337	1152 – RO Sulfuric Acid Storage Tank D-4248																						
EQT 338	3104 – No. 3 Steam Plant East Package Boiler										1			1	1								
EQT 339	3105 – No. 3 Steam Plant West Package Boiler										1			1	1								
FUG006	196T - Fugitives																						
EQT847	3106 -- EOC Dispatch Emergency Generator (Diesel)															1							

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations
Agency Interest No.: 2083
Activity No.: PER20070040
Union Carbide Corp
Taft, St. Charles Parish, Louisiana

KEY TO MATRIX

- 1 -The regulations have applicable requirements that apply to this particular emission source.
 -The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.
 - 2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.
 - 3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.
- Blank – The regulations clearly do not apply to this type of emission source.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations

Agency Interest No.: 2083

Activity No.: PER20070040

Union Carbide Corp

Taft, St. Charles Parish, Louisiana

XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No:	Requirement	Notes
EQT 334 185A -- Sulfuric Acid Storage Tank & EQT 337 1152 -- RO Sulfuric Acid Storage Tank	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984. [40 CFR 60.110b]	DOES NOT APPLY. Storage tanks do not store volatile organic liquids.
	Control of Emissions of Organic Compounds: Storage of Volatile Organic Compounds [LAC 33:III.2103]	DOES NOT APPLY. Tanks do not store volatile organic compounds.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations

Agency Interest No.: 2083

Activity No.: PER20070040

Union Carbide Corp

Taft, St. Charles Parish, Louisiana

Table 2. Explanation for Exemption Status or Non-Applicability of a Source

No.	Requirement	Notes
DT 335 50 -- GTG/HRSG Stack st	Acid Rain Program Permitting Requirements [40 CFR 72] [LAC 33.III.505]	DOES NOT APPLY. The GTG/HRSG Stacks do not supply more than one third of their potential electrical output capacity on an annual basis to any utility power distribution system for sale.
DT 336 51 -- CTG/HRSG Stack	NESHAP Subpart YYYY – Stationary Combustion Turbines [40 CFR 63.6080]	EXEMPT. Existing stationary combustion turbines constructed before January 14, 2003. Turbines do not have to meet the requirements of this subpart and of Subpart A of this part as per 40 CFR 63.6090(b)(4). No initial notification is necessary for any existing stationary combustion turbine. Duct burners and waste heat recovery units are not covered under this Subpart per 40 CFR 63.6092.
	NSPS Subpart Db – Emission monitoring for particulate matter and nitrogen oxides. [40 CFR 60.48b(b)]	EXEMPT. Source exempted from this requirement through 40 CFR 60.48b (h).
	General Regulations on Control of Emissions and Emission Standards: Emission Monitoring Requirements [LAC 33.III.915.A]	EXEMPT. Sources are subject to NSPS Standards and are exempt as per LAC 33.III.915.D
	Emissions Standards for Sulfuric Dioxide: Emissions Limitations, All Other Sources [LAC 33.III.1503.C]	EXEMPT. Each train (GTG/HRSG) emits <250 TPY of sulfur compounds measured as sulfur dioxide.
	Emission Standards for Sulfur Dioxide Continuous Emissions Monitoring [LAC 33.III.1511.A]	EXEMPT. Unit emits less than 100 tons of SO ₂ per year.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations

Agency Interest No.: 2083

Activity No.: PER20070040

Union Carbide Corp

Taft, St. Charles Parish, Louisiana

I. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

D No:	Requirement	Notes
QT 338 104 – No.3 Steam Plant as Package Boiler	Acid Rain Program Permitting Requirements [40 CFR 72] [LAC 33:III.505]	DOES NOT APPLY. Sources do not supply more than one third of their potential electrical output capacity on an annual basis to any utility power distribution system for sale.
QT 339 105 – No.3 Steam Plant as Package Boiler	Compliance Assurance Monitoring (CAM) [40 CFR 64]	EXEMPT. The Cogeneration Units and the proposed boilers have the potential for NOx emissions > 100 TPY with NOx limitations. Low NOx burners are required to meet the emissions limitations; however CAM does not apply to Low NOx burners per 40 CFR 64.1
	NSPS Subpart D – Standards of Performance for Fossil-Fuel Fired Steam Generators for which construction is commenced after August 17, 1971 [40 CFR 60.40]	DOES NOT APPLY. Per 40 CFR 60.40(j) any facility applicable to Subpart Db is not subject to Subpart D.
	NSPS Subpart Da – Standards of Performance for Electric Utility Steam Generating Unit for which Construction is Commenced after September 18, 1978 [40 CFR 60.40a]	DOES NOT APPLY. Source does not meet the definition of an Electric Utility Steam Generating Unit. These boilers will not be constructed for the purpose of supplying more than 1/3 of their potential electrical output capacity for sale.
	NSPS Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR 60.40c]	DOES NOT APPLY. Boilers have a maximum design heat input capacity greater than 29 MW (100 MMbtw/hr). Each boiler maximum heat input capacity is 390 MM Btu/hr.
	General Regulations on Control of Emissions and Emission Standards: Emission Monitoring Requirements [LAC 33:III.915.A]	EXEMPT. Sources are subject to NSPS Standards and are exempt as per LAC 33:III.915.D

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Union Carbide Corp - St Charles Operations
 Agency Interest No.: 2083
 Activity No.: PER20070040
Union Carbide Corp
Taft, St. Charles Parish, Louisiana

XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID No.	Requirement	Notes
EQT 338 & EQT 339 3104 & 3105 Continuation	Emissions Standards for Sulfur Dioxide: Emissions Limitations, All Other Sources [LAC 33:III.Chapter 15]	DOES NOT APPLY as per LAC 33:III.1502.A.3. Equipment does not emit or have the potential to emit over 5 tons per year of Sulfur Dioxide.
FUG006 196T--Fugitives	NESHAP 40 CFR 61 Subpart V – Fugitive Emissions Sources [40 CFR 61.240]	DOES NOT APPLY. Unit does not have any equipment in service for volatile HAPs listed in 40 CFR 61.01.
	Control of Emissions of Organic Compounds: Pumps and Compressors [LAC 33:III.2122]	DOES NOT APPLY. This does not apply to ozone attainment areas.
EQT847 3106 -- EOC Dispatch Emergency Generator (Diesel)	Comprehensive Toxic Air Pollutant Emission Control Program. [LAC 33:III.5109]	EXEMPT per LAC 33:III.5105.B.3.a. Emissions are from the combustion of Group 1 virgin fossil fuels.

The above table provides explanation for both the exemption status or non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.

40 CFR PART 70 GENERAL CONDITIONS

- A. The term of this permit shall be five (5) years from date of issuance. An application for a renewal of this 40 CFR Part 70 permit shall be submitted to the administrative authority no later than six months prior to the permit expiration date. Should a complete permit application not be submitted six months prior to the permit expiration date, a facility's right to operate is terminated pursuant to 40 CFR Section 70.7(c)(ii). Operation may continue under the conditions of this permit during the period of the review of the application for renewal. [LAC 33:III.507.E.1, E.3, E.4, reference 40 CFR 70.6(a)(2)]
- B. The conditions of this permit are severable; and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [Reference 40 CFR 70.6(a)(5)]
- C. Permittee shall comply with all conditions of the 40 CFR Part 70 permit. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [LAC 33:III.507.B.2, reference 40 CFR 70.6(a)(6)(i) & (iii)]
- D. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Reference 40 CFR 70.6(a)(6)(ii)]
- E. This permit does not convey any property rights of any sort, or an exclusive privilege. [Reference 40 CFR 70.6(a)(6)(iv)]
- F. The permittee shall furnish to the permitting authority, within a reasonable time, any information that the permitting authority may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the permitting authority copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. A claim of confidentiality does not relieve the permittee of the requirement to provide the information. [LAC 33:III.507.B.2, 517.F, reference 40 CFR 70.6(a)(6)(v)]
- G. Permittee shall pay fees in accordance with LAC 33:III.Chapter 2 and 40 CFR Section 70.6(a)(7). [LAC 33:III.501.C.2, reference 40 CFR 70.6(a)(7)]
- H. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or authorized representative to perform the following:
 - 1. enter upon the permittee's premises where a 40 CFR Part 70 source is located or emission-related activity is conducted, or where records must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(i)];
 - 2. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(ii)];
 - 3. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iii)]; and

40 CFR PART 70 GENERAL CONDITIONS

4. as authorized by the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [LAC 33:III.507.H.2, reference 40 CFR 70.6(c)(2)(iv)]
- I. All required monitoring data and supporting information shall be kept available for inspection at the facility or alternate location approved by the agency for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Supporting information includes calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and all reports required by the permit.
[Reference 40 CFR 70.6(a)(3)(ii)(B)]
- J. Records of required monitoring shall include the following:
 1. the date, place as defined in the permit, and time of sampling or measurements;
 2. the date(s) analyses were performed;
 3. the company or entity that performed the analyses;
 4. the analytical techniques or methods used;
 5. the results of such analyses; and
 6. the operating conditions as existing at the time of sampling or measurement.
[Reference 40 CFR 70.6(a)(3)(ii)(A)]
- K. Permittee shall submit at least semiannually, reports of any required monitoring, clearly identifying all instances of deviations from permitted monitoring requirements, certified by a responsible company official. For previously reported deviations, in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The semiannual reports shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding period encompassing July through December and September 30 for the preceding period encompassing January through June. Any quarterly deviation report required to be submitted by March 31 or September 30 in accordance with Part 70 General Condition R may be consolidated with the semi-annual reports required by this general condition as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [LAC 33:III.507.H, reference 40 CFR 70.6(a)(3)(iii)(A)]
- L. The permittee shall submit at least semiannual reports on the status of compliance pursuant to 40 CFR Section 70.5 (c) (8) and a progress report on any applicable schedule of compliance pursuant to 40 CFR Section 70.6 (c) (4). [LAC 33:III.507.H.1, reference 40 CFR 70.6(c)(4)]
- M. Compliance certifications per LAC 33:III.507.H.5 shall be submitted to the Administrator as well as the permitting authority. For previously reported compliance deviations, in lieu of attaching the individual deviation reports, the annual report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The compliance certifications shall be submitted to the Office of Environmental Compliance, Enforcement Division by March 31 for the preceding calendar year. [LAC 33:III.507.H.5, reference 40 CFR 70.6(c)(5)(iv)]
- N. If the permittee seeks to reserve a claim of an affirmative defense as provided in LAC 33:III.507.J.2, the permittee shall, in addition to any emergency or upset provisions in any applicable regulation, notify the permitting authority within 2 working days of the time when emission limitations were exceeded due to the occurrence of an upset. In the event of an upset, as defined under LAC 33:III.507.J, which results in excess emissions, the permittee shall demonstrate through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an

40 CFR PART 70 GENERAL CONDITIONS

emergency occurred and the cause was identified; 2) the permitted facility was being operated properly at the time; and 3) during the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standard or requirement of the permit. [LAC 33:III.507.J.2, reference 40 CFR 70.6(g)(3)(iv) & (i-iii)]

- O. Permittee shall maintain emissions at a level less than or equal to that provided for under the allowances that the 40 CFR Part 70 source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act. [Reference 40 CFR 70.6(a)(4)]
- P. Any permit issued pursuant to 40 CFR Part 70 may be subject to reopening prior to the expiration of the permit for any of the conditions specified in 40 CFR Section 70.7(f) or LAC 33:III.529. [LAC 33:III.529.A-B, reference 40 CFR 70.7(f)]
- Q. Permittee may request an administrative amendment to the permit to incorporate test results from compliance testing if the following criteria are met:
 - 1. the changes are a result of tests performed upon start-up of newly constructed, installed, or modified equipment or operations;
 - 2. increases in permitted emissions will not exceed five tons per year for any regulated pollutant;
 - 3. increases in permitted emissions of Louisiana toxic air pollutants or of federal hazardous air pollutants would not constitute a modification under LAC 33:III. Chapter 51 or under Section 112 (g) of the Clean Air Act;
 - 4. changes in emissions would not require new source review-for prevention-of significant deterioration or nonattainment and would not trigger the applicability of any federally applicable requirement;
 - 5. changes in emissions would not qualify as a significant modification; and
 - 6. the request is submitted no later than 12 months after commencing operation. [LAC 33:III.523.A, reference 40 CFR 70.7(d)]
- R. Permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance, Enforcement Division. All such reports shall be certified by a responsible official in accordance with 40 CFR 70.5(d).
 - 1. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 - 2. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.

40 CFR PART 70 GENERAL CONDITIONS

3. A written report shall be submitted quarterly to address all permit deviations not included in paragraphs 1 or 2 above. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The quarterly deviation reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by Part 70 General Condition K as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations, in lieu of attaching the individual deviation reports, the quarterly report may clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any permit deviations occurring during the corresponding specified calendar quarter:
 - a. Report by June 30 to cover January through March
 - b. Report by September 30 to cover April through June
 - c. Report by December 31 to cover July through September
 - d. Report by March 31 to cover October through December
 4. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided such reports are certified in accordance with 40 CFR 70.5(d) and contain all information relevant to the permit deviation. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107. [Reference 40 CFR 70.6(a)(3)(iii)(B)]
- S. Permittee shall continue to comply with applicable requirements on a timely basis, and will meet on a timely basis applicable requirements that become effective during the permit term. [Reference 40 CFR 70.5(c)(8)(iii)]
- T. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156;
 2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158;
 3. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161;
 4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to 40 CFR 82.166. ("MVAC-like appliance" as defined at 40 CFR 82.152);
 5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR 82.156; and
 6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166. [Reference 40 CFR 82, Subpart F]

40 CFR PART 70 GENERAL CONDITIONS

- U. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant. [Reference 40 CFR 82, Subpart B]

- V. Data availability for continuous monitoring or monitoring to collect data at specific intervals: Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emissions unit is operating. For purposes of reporting monitoring deviations under Part 70 General Conditions K and R, and unless otherwise provided for in the Specific Requirements (or Table 3) of this permit, the minimum degree of data availability shall be at least 90% (based on a monthly average) of the operating time of the emissions unit or activity being monitored. This condition does not apply to Leak Detection and Repair (LDAR) programs for fugitive emissions (e.g., 40 CFR 60 Subpart VV, 40 CFR 63 Subpart H).

LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

- I. This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.501. If the emissions are determined to be greater than those allowed by the permit (e.g. during the shakedown period for new or modified equipment) or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted. All terms and conditions of this permit shall remain in effect unless and until revised by the permitting authority.
- II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.
- III. The Emission Rates for Criteria Pollutants, Emission Rates for TAP/HAP & Other Pollutants, and Specific Requirements sections or, where included, Emission Inventory Questionnaire sheets establish the emission limitations and are a part of the permit. Any operating limitations are noted in the Specific Requirements or, where included, Tables 2 and 3 of the permit. The synopsis is based on the application and Emission Inventory Questionnaire dated November 9, 2007.
- IV. This permit shall become invalid, for the sources not constructed, if:
 - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
 - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.
- V. The permittee shall submit semiannual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Office of Environmental Services, Air Permits Division.
- VI. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services, Air Permits Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

- VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Specific Conditions and, where included, Tables 1, 2, 3, 4, and 5 of this permit. Any deviation from or modification of the methods used for testing shall have prior approval from the Office of Environmental Assessment, Air Quality Assessment Division.
- VIII. The emission testing described in paragraph VII above, or established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Assessment, Air Quality Assessment Division shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Assessment Division within sixty (60) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up and shakedown of each project or unit, report to the Office of Environmental Compliance, Enforcement Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets. A permit modification shall be submitted, if necessary, as required in Condition I.
- X. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.
- XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the Office of Environmental Compliance, Enforcement Division with a written report as specified below.
 - A. A written report shall be submitted within 7 days of any emission in excess of permit requirements by an amount greater than the Reportable Quantity established for that pollutant in LAC 33.I.Chapter 39.
 - B. A written report shall be submitted within 7 days of the initial occurrence of any emission in excess of permit requirements, regardless of the amount, where such emission occurs over a period of seven days or longer.
 - C. A written report shall be submitted quarterly to address all emission limitation exceedances not included in paragraphs A or B above. The schedule for submittal of quarterly reports shall be no later than the dates specified below for any emission limitation exceedances occurring during the corresponding specified calendar quarter:
 - 1. Report by June 30 to cover January through March
 - 2. Report by September 30 to cover April through June
 - 3. Report by December 31 to cover July through September
 - 4. Report by March 31 to cover October through December

**LOUISIANA AIR EMISSION PERMIT
GENERAL CONDITIONS**

- D. Each report submitted in accordance with this condition shall contain the following information:
1. Description of noncomplying emission(s);
 2. Cause of noncompliance;
 3. Anticipated time the noncompliance is expected to continue, or if corrected, the duration of the period of noncompliance;
 4. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
 5. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.
- E. Any written report submitted in advance of the timeframes specified above, in accordance with an applicable regulation, may serve to meet the reporting requirements of this condition provided all information specified above is included. For Part 70 sources, reports submitted in accordance with Part 70 General Condition R shall serve to meet the requirements of this condition provided all specified information is included. Reporting under this condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.
- XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:
- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
 - B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
 - C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
 - D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.
- XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

- XV. The permittee shall comply with the reporting requirements specified under LAC 33:III.919 as well as notification requirements specified under LAC 33:III.927.
- XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Office of Environmental Services, Air Permits Division, within ninety (90) days after the event, to amend this permit.
- XVII. Very small emissions to the air resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility and approved by the Air Permits Division are considered authorized discharges. Approved activities are noted in the General Condition XVII Activities List of this permit. To be approved as an authorized discharge, these very small releases must:
1. Generally be less than 5 TPY
 2. Be less than the minimum emission rate (MER)
 3. Be scheduled daily, weekly, monthly, etc., or
 4. Be necessary prior to plant startup or after shutdown [line or compressor pressuring/depressuring for example]
- These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. This general condition does not authorize the maintenance of a nuisance, or a danger to public health and safety. The permitted facility must comply with all applicable requirements, including release reporting under LAC 33:I.3901.
- XVIII. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. Construction cannot proceed except as specifically approved by the secretary or assistant secretary. A request for hearing must be sent to the following:
- Attention: Office of the Secretary, Legal Services Division
La. Dept. of Environmental Quality
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302
- XIX. Certain Part 70 general conditions may duplicate or conflict with state general conditions. To the extent that any Part 70 conditions conflict with state general conditions, then the Part 70 general conditions control. To the extent that any Part 70 general conditions duplicate any state general conditions, then such state and Part 70 provisions will be enforced as if there is only one condition rather than two conditions.

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

12083

- 1 [40 CFR 61.145(b)(1)] Provide DEQ with written notice of intention to demolish or renovate prior to performing activities to which 40 CFR 61 Subpart M applies.
Delivery of the notice by U.S. Postal Service, commercial delivery service, or hand delivery is acceptable. [40 CFR 61.145(b)(1)]
- 2 [40 CFR 61.148] Do not install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. Subpart M.
- 3 [40 CFR 61.355] Determine compliance with 40 CFR 61 Subpart FF using the test methods and procedures specified in 40 CFR 61.355(a) through (i), as applicable. Subpart FF.
- 4 [40 CFR 61.356] Subpart FF applies to the UCC TAFT facility. This facility handles greater than 10 megagrams benzene per year. Controls are in place for wastewater streams with flow-weighted annual average benzene concentrations greater than 10 ppmv. The Energy System Unit produces no benzene wastewater.
- 5 [40 CFR 61.357(a)] Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records as specified in 40 CFR 61.356(a) through (n). Maintain each record in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified. Subpart FF.
- 6 [40 CFR 61.357(a)] Submit report: Due by initial startup. Submit a report that summarizes the regulatory status of each waste stream subject to 40 CFR 61.342 and is determined by the procedures specified in 40 CFR 61.355(c) to contain benzene. Include the information specified in 40 CFR 61.357(a)(1) through (a)(4). If there is no benzene onsite in wastes, products, by-products, or intermediates, submit an initial report that is a statement to this effect. Subpart FF. [40 CFR 61.357(a)]
- 7 [40 CFR 61.357(d)(1)] Submit report: Due by the date of initial startup. Submit a certification that the equipment necessary to comply with 40 CFR 61 Subpart FF has been installed and that the required initial inspections or tests have been carried out in accordance with 40 CFR 61 Subpart FF. Subpart FF. [40 CFR 61.357(d)(1)]
- 8 [40 CFR 61.357(d)(6)] Submit report: Due annually, beginning on the date that equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Submit updates to the information listed in 40 CFR 61.357(a)(1) through (a)(3) or, if the information in 40 CFR 61.357(a)(1) through (3) is not changed in the following year, a statement to that effect. Subpart FF. [40 CFR 61.357(d)(2)]
- 9 [40 CFR 61.357(d)(7)] Submit report: Due quarterly, beginning three months after the date that the equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with the requirements of 40 CFR 61 Subpart FF. Subpart FF. [40 CFR 61.357(d)(6)]
- 10 [40 CFR 61.357(d)(8)] Submit report: Due quarterly, beginning three months after the date that the equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Submit a certification that all of the required inspections have been carried out in accordance with the requirements of 40 CFR 61 Subpart FF. Subpart FF. [40 CFR 61.357(d)(7)]
- 11 [40 CFR 61.] Submit report: Due annually, beginning one year after the date that the equipment necessary to comply with 40 CFR 61 Subpart FF has been certified in accordance with 40 CFR 61.357(d)(1). Submit a report that summarizes all inspections required by 40 CFR 61.342 through 61.354 during which detectable emissions are measured or a problem that could result in benzene emissions is identified, including information about the repairs or corrective action taken. Subpart FF. [40 CFR 61.357(d)(8)]
- 12 [40 CFR 63.7881(a)] All affected facilities shall comply with all applicable provisions in 40 CFR 61 Subpart A.
- 13 [40 CFR 63.7935(a)] When permittee conducts a site remediation, as defined in 40 CFR 63.7957, permittee shall comply with all applicable requirements of this subpart unless the site remediation is exempted under 40 CFR 63.7881(b) or (c). Subpart GGGGG. [40 CFR 63.7881(a)] Comply with the emission limitations (including operating limits) and the work practice standards in 40 CFR 63 Subpart GGGGG, as applicable, at all times, except during periods of startup, shutdown, and malfunction. Subpart GGGGG. [40 CFR 63.7935(a)]

SPECIFIC REQUIREMENTS**AI ID: 2083 - Union Carbide Corp - St Charles Operations****Activity Number: PER20070040****Permit Number: 2343-V1****Air - Title V Regular Permit Major Mod****AI2083**

- 14 [40 CFR 63.7935(b)] Operate and maintain facility, including air pollution control and monitoring equipment, as applicable, according to the provisions in 40 CFR 63.6(e)(1)(i). Subpart GGGGG. [40 CFR 63.7935(b)]
- 15 [40 CFR 63.7935(c)] Develop a written startup, shutdown, and malfunction plan (SSMP), as applicable, according to the provisions in 40 CFR 63.6(e)(3). Subpart GGGGG. [40 CFR 63.7935(c)]
- 16 [40 CFR 63.7935(g)] Develop and make available for inspection by DEQ, upon request, a site-specific monitoring plan that addresses the information specified in 40 CFR 63.7935(g) and (h), as applicable, for each monitoring system required in 40 CFR 63.7935. Subpart GGGGG. [40 CFR 63.7935(g)]
- 17 [40 CFR 63.7935(i)] Operate and maintain the continuous monitoring system according to the site-specific monitoring plan. Subpart GGGGG. [40 CFR 63.7935(i)]
- 18 [40 CFR 63.7935(j)] Conduct a performance evaluation of each continuous monitoring system according to the site-specific monitoring plan. Subpart GGGGG. [40 CFR 63.7935(j)]
- 19 [40 CFR 63.7936(a)] Transfer the remediation material to a facility that meets the requirements in 40 CFR 63.7936(b), as applicable. Record the name, street address, and telephone number of the facility where the remediation material is sent. Subpart GGGGG. [40 CFR 63.7936(a)]
- 20 [40 CFR 63.7936(b)(2)] Obtain a written statement from the owner or operator of the facility to which remediation material is being sent acknowledging that the exemption under 40 CFR 63.680(b)(2)(iii) will be waived for all remediation material received at the facility from you and your material will be managed as an off-site material at the facility according to all applicable requirements prior to sending remediation material. Ensure that the statement is signed by the responsible official of the receiving facility, provides the name and address of the receiving facility, and that a copy is sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13. Subpart GGGGG. [40 CFR 63.7936(b)(2)]
- 21 [40 CFR 63.7936(b)(3)(i)] Prepare and include a notice with each shipment or transport of remediation material from the site. Ensure that this notice states that the remediation material contains organic HAP that are to be treated according to the provisions of 40 CFR 63 Subpart GGGGG, as applicable.
- When the transport is continuous or ongoing, submit the notice to the receiving facility owner or operator initially and whenever there is a change in the required treatment. Subpart GGGGG. [40 CFR 63.7936(b)(3)(i)]
- 22 [40 CFR 63.7936(b)(3)(ii)] Do not transfer remediation material unless the owner or operator of the facility receiving your remediation material has submitted to the EPA a written certification that he or she will manage remediation material received from you according to the requirements of 40 CFR 63.7885 through 63.7957. Subpart GGGGG. [40 CFR 63.7936(b)(3)(ii)]
- 23 [40 CFR 63.7937(a)] Demonstrate initial compliance with the applicable general standards in 40 CFR 63.7884 through 63.7887 by meeting the requirements in 40 CFR 63.7937(b) through (d), as applicable. Subpart GGGGG. [40 CFR 63.7937(a)]
- 24 [40 CFR 63.7938(a)] Demonstrate continuous compliance with the applicable general standards in 40 CFR 63.7884 through 63.7887 by meeting the requirements in 40 CFR 63.7938(b) through (d), as applicable. Subpart GGGGG. [40 CFR 63.7938(a)]
- 25 [40 CFR 63.7950(a)] Submit all of the applicable notifications in 40 CFR 63.7(b) and (c), 63.8(f)(4) and (6), and 63.9(b) through (h), as specified in 40 CFR 63.7950. Subpart GGGGG. [40 CFR 63.7950(a)]
- 26 [40 CFR 63.7951(c)] Submit immediate startup, shutdown, and malfunction report: Due according to the requirements of 40 CFR 63.10(d)(5)(ii) if there was a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with the startup, shutdown, and malfunction plan. Subpart GGGGG. [40 CFR 63.7951(c)]
- 27 [40 CFR 63.7951] Submit compliance status report: Due semiannually, by the 31st of January and July. Include the information specified in 40 CFR 63.7951(b)(1) through (b)(3) and, as applicable, (b)(4) through (b)(9). Subpart GGGGG.
- 28 [40 CFR 63.7952] Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in 40 CFR 63.7952(a) through (d), as applicable. Subpart GGGGG.

SPECIFIC REQUIREMENTS

A1 ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

M2083

29 [40 CFR 63.7953(a)]
 Keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). Keep files of all information (including all reports and notifications) for 5 years following the date of each occurrence, measurement, maintenance, action taken to correct the cause of a deviation, report, or record, as specified in 40 CFR 63.10(b)(1). Keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, correction action, report, or record, according to 40 CFR 63.10(b)(1). Records may be kept off-site for the remaining 3 years. Subpart GGGGG. [40 CFR 63.7953(a)]

Review and update the RMP as specified in 68.190(b) and submit it in a method and format to a central point specified by EPA prior to June 21, 1999.

Revised RMP submitted November 29, 2000.

Comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B.

All maintenance of equipment and automobiles containing ozone depleting substances is performed by outside contractors who comply with this regulation.

:QT0334 185A -- No. 1 Water Treating Sulfuric Acid Storage Tank D2450R

Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ.
 Tank emits Sulfuric Acid, a Class III TAP. MACT is not required for Class III TAPs.

:QT0335 1150 -- GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack - East

Nitrogen oxides <= 0.026 % by volume at 15% oxygen and on a dry basis in gases discharged to the atmosphere. Use analytical methods and procedures that are accurate to within 5 percent and are approved by DEQ to determine the nitrogen content of the fuel being fired per 40 CFR 60.335(a). Subpart GG

As per 40 CFR 60.332(k), this unit will comply with the NOx limits from Subpart GG using equation from 40 CFR 60.332(a)(2).

Additionally, the unit will meet BACT for NOx, via low NOx burners. The BACT standard for NOx is 25 ppmv on a dry basis and corrected to 15% oxygen. This is more stringent than the NSPS standard of 260 ppmv or 0.026% by volume. Therefore, compliance with BACT will also meet compliance with NSPS.

TESTING COMPLETED (June 9 & 10, 1997). [LAC 33:III.509, 40 CFR 51.166, 40 CFR 60.332(a)(2)]

Which Months: All Year Statistical Basis: None specified

Fuel sulfur content <= 0.8 % by weight (8000 ppmw) for any fuel burned. Subpart GG

The unit will meet BACT for SO2 by burning clean gaseous fuel. The clean gaseous fuel burned is natural gas which based on AP-42 factors, has a sulfur content of 7 ppm. This fuel meets BACT standards. [40 CFR 60.333(b), 40 CFR 51.166, LAC 33:III.509]

Which Months: All Year Statistical Basis: None specified

Nitrogen oxides <= 0.2 lb/MMBTU (86 ng/J) heat input (expressed as NO2). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db. [40 CFR 60.44b(a)(4), 40 CFR 60.44b(i)]

Which Months: All Year Statistical Basis: Thirty-day rolling average

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

[0335 1150 -- GTG/HRSIG (gas turbine generator/heat recovery steam generator) Stack • East

[40 CFR 60.46(b)(c)] Conduct performance testing to demonstrate compliance with the nitrogen oxides emission standards in 40 CFR 60.44b by following 40 CFR 60.46b(e) or (f), or following 40 CFR 60.46b(g) and (h), as applicable. Subpart Db TESTING COMPLETED (June 9 & 10, 1997). [40 CFR 60.46b(c)]

Submit the performance test data from the initial performance test using the applicable performance specifications in 40 CFR 60 Appendix B to DEQ. Subpart Db TESTING COMPLETED (June 9 & 10, 1997)

[40 CFR 60.49b(b)]

Fuel rate recordkeeping by electronic or hard copy daily. Record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. Determine the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Subpart Db [40 CFR 60.49b(d)]

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(10) as necessary for each steam generating unit operating day, except as provided under 40 CFR 60.49b(p). Subpart Db. [40 CFR 60.49b(g)]

Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]

Introduce the vent stream into the flame zone if a process heater or boiler is used to comply. Subpart NNN The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.662(a)]

Total Organic Compounds (less methane and ethane) $\geq 98\%$ reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppm, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart NNN The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.662(a)]

Which Months: All Year Statistical Basis: None specified Flow monitored by flow indicator hourly. Monitor the vent stream flow to the boiler or process heater. Install the flow indicator in the vent stream from each distillation unit within an affected facility at a point closest to the inlet of each boiler or process heater and before being joined with any other vent stream. Subpart NNN The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN.

Flow is monitored at unit where the stream originates. [40 CFR 60.663(c)(1)]

Which Months: All Year Statistical Basis: None specified Flow recordkeeping by electronic or hard copy hourly. Record the vent stream flow to the boiler or process heater at least once every hour for

each affected facility. Subpart NNN The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. Flow is recorded at unit where the stream originates. [40 CFR 60.663(c)(1)]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

EQT0335 1150 -- GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack - East

45 [40 CFR 60.663(d)]

Operating time monitored by hour/time monitor at the regulation's specified frequency. Monitor the periods of operation. Subpart NNN
The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.663(d)]

46 [40 CFR 60.663(d)]

Operating time recordkeeping by electronic or hard copy at the regulation's specified frequency. Make records, of the periods of operation, readily available for inspection. Subpart NNN

The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.663(d)]

When a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to seek to comply with 40 CFR 60.662(a), the requirement for an initial performance test is waived, in accordance with 40 CFR 60.8(b). Subpart NNN

The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.663(d)]

For a boiler or process heater submit a report containing the information in 40 CFR 60.665(b)(2)(i). Subpart NNN

The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.665(b)]

Maintain records of any change in location at which vent stream is introduced into the flame zone. Subpart NNN

The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.665(c)(4)]

Introduce the vent stream into the flame zone. Subpart RRR. [40 CFR 60.702(a)]

Total Organic Compounds (less methane and ethane) \geq 98 % reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart RRR. [40 CFR 60.702(a)]

Which Months: All Year Statistical Basis: None specified
Flow indication monitored by visual inspection/determination monthly. Monitor the seal or closure mechanism (car - seal or lock - and - key type) on any bypass line to ensure that the valve is maintained in a closed position. Subpart RRR

Flow is monitored at unit where the stream originates. [40 CFR 60.703(c)(1)(ii)]

Which Months: All Year Statistical Basis: None specified
Flow indication recordkeeping by electronic or hard copy monthly. Record the position of the valve. Subpart RRR

Flow is recorded at unit where the stream originates. [40 CFR 60.703(c)(1)(ii)]

Flow indication monitored by flow indicator once every 15 minutes. Monitor the vent stream flow diverted from being routed to the boiler or process heater for each affected facility, except as provided in 40 CFR 60.703(c)(1)(ii). Install the flow indicator at the entrance to any bypass line that could divert the vent stream from being routed to the boiler or process heater, resulting in its emission to the atmosphere. Subpart RRR

Flow is monitored at unit where the stream originates. [40 CFR 60.703(c)(1)]

Which Months: All Year Statistical Basis: None specified
Flow indication recordkeeping by electronic or hard copy once every 15 minutes. Record the vent stream flow to the boiler or process heater for each affected facility. Subpart RRR

Flow is recorded at unit where the stream originates. [40 CFR 60.703(c)(1)]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

EQT0335 1150 -- GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack - East

56 [40 CFR 60.704(b)(5(i-ii))] The requirement for an initial performance test is waived, in accordance with 40 CFR 60.8(b), for a boiler or process heater with a design heat input capacity of 44 MW (150 Btu/hour) or greater used to seek compliance with 40 CFR 60.702(a) when the vent stream is introduced into the boiler or process heater with the primary fuel. Subpart RRR. [40 CFR 60.704(b)(5(i-ii))]
 57 [40 CFR 60.705(b)] For a boiler or process heater submit a report containing the information in 40 CFR 60.705(b)(2)(i). [40 CFR 60.705(b)]
 58 [40 CFR 60.705(c)(4)] Maintain records of any change in location at which vent stream is introduced into the flame zone. Subpart RRR. [40 CFR 60.705(c)(4)]
 59 [LAC 33:III.1101.B] Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or trapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).

Which Months: All Year Statistical Basis: None specified
 Total suspended particulate <= 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).
 Which Months: All Year Statistical Basis: None specified
 Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Make records available to a representative of DEQ or the U.S. EPA on request.

SPECIFIC CONDITION 1

The permittee is authorized to operate in conformity with the specifications submitted to the Louisiana Department of Environmental Quality (LDEQ) as analyzed in LDEQ's document entitled "Preliminary Determination Summary" dated July 10, 1995, and subject to the following emission limitations and other specified conditions. Specifications submitted to LDEQ are contained in the original application dated May 18, 1995.

MAXIMUM ALLOWABLE EMISSIONS RATES

Point No.	Description	Pollutant	Maximum Permitted Emissions Lb/hr	TPY
1150	GTG/HRSG Stack	PM10	18.3	78.4
		NOx	259.1	1108.9
		CO	198.6	850.2
		SO2	1.4	6.2
		VOC	10.8	46.2
1151	GTG/HRSG Stack	PM10	18.3	78.4
		NOx	259.1	1108.9
		CO	198.6	850.2
		SO2	1.4	6.2
		VOC	10.8	46.2

From PSD-LA-590.

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

EQT0335 1150 -- GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack - East

63 [LAC 33.III.509]

SPECIFIC CONDITION 2

Permittee shall demonstrate compliance with permitted emission limits of Specific Condition 1 by performing stack test using methods found in 40 CFR 60, Appendix A, for the new Gas Turbine Generators (GTGs), as follows:

- A) CO by Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources;
- B) NO_x by Method 20 - Determination of Nitrogen Oxides, Sulfur Dioxide, and Oxygen Emissions From Stationary Gas Turbines; or other methods suitable to the Air Quality Division Engineering Section. Permittee shall demonstrate compliance with a 25 ppmv NO_x emission limit (on a dry basis corrected to 15% O₂) for the Gas Turbine Generators.

TESTING COMPLETED (June 9 & 10, 1997)

From PSD-LA-590.

SPECIFIC CONDITION 3

Permittee shall comply with all applicable provisions of New Source Performance Standards, 40 CFR 60, Subpart Db-Standards of Performance for Stationary Gas Turbines, in the operations of this Gas Turbine Generator, Emissions Point 1150.

From PSD-LA-590

SPECIFIC CONDITION 4

Permittee shall comply with all applicable provisions of New Source Performance Standards, 40 CFR 60, Subpart Db-Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, for the HRSG duct burners.

From PSD-LA-590.

SPECIFIC CONDITION 5

Performance testing will be required for the HRSG duct burners to demonstrate compliance with the NO_x standard of 0.1 lb/MM BTU with combustion of natural gas only, and 0.2 lb/MM BTU with combustion of natural gas/H₂ mix. Because the HRSG duct burners cannot be operated independently from the GTGs, the following test method should be following:

- A) Test stack exhaust while operating the GTGs and the HRSG duct burners simultaneously,
- B) Test stack exhaust while operating the GTGs alone, and
- C) The difference between the two test scenarios above shall be used to determine the emissions rate from the HRSG duct burners alone.

TESTING COMPLETED (June 9 & 10, 1997)

From PSD-LA-590.

Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Duct burners emit Ethylene Oxide, a Class I TAP. Determined as MACT. Stream is vented to the fuel gas header and introduced with primary fuel into the flame zones of the burners.

EQT0336 1151 -- GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack - West

67 [LAC 33.III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

EQT0336 1151 -- GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack - West

68 [40 CFR 60.332(a)(2)]

Nitrogen oxides <= 0.026 % by volume at 15% oxygen and on a dry basis in gases discharged to the atmosphere. Use analytical methods and procedures that are accurate to within 5 percent and are approved by DEQ to determine the nitrogen content of the fuel being fired per 40 CFR 60.335(a). Subpart GG

As per 40 CFR 60.332(k), this unit will comply with the NOx limits from Subpart GG using equation from 40 CFR 60.332(a)(2). Additionally, the unit will meet BACT for NOx, via low NOx burners. The BACT standard for NOx is 25 ppmv on a dry basis and corrected to 15% oxygen. This is more stringent than the NSPS standard of 260 ppmv or 0.026% by volume. Therefore, compliance with BACT will also meet compliance with NSPS.

TEST COMPLETED June 11 & 12, 1997. [40 CFR 60.332(a)(2), 40 CFR 51.166, LAC 33:III.509]

Which Months: All Year Statistical Basis: None specified

Fuel sulfur content <= 0.8 % by weight (8000 ppmw) for any fuel burned. Subpart GG

The unit will meet BACT for SO2 by burning clean gaseous fuel. The clean gaseous fuel burned is natural gas which based on AP-42 factors, has a sulfur content of 7 ppm.

This fuel meets BACT standards. [40 CFR 60.333(b), 40 CFR 51.166, LAC 33:III.509]

Which Months: All Year Statistical Basis: None specified

Nitrogen oxides <= 0.2 lb/MMBTU (86 ng/J) heat input (expressed as NO2). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db. [40 CFR 60.44b(i), 40 CFR 60.44b(a)(4)]

Which Months: All Year Statistical Basis: Thirty-day rolling average

Conduct performance testing to demonstrate compliance with the nitrogen oxides emission standards in 40 CFR 60.44b by following 40 CFR 60.46b(e) or (f), or following 40 CFR 60.46b(g) and (h), as applicable. Subpart Db

TEST COMPLETED June 11 & 12, 1997. [40 CFR 60.46b(c)]

Submit the performance test data from the initial performance test using the applicable performance specifications in 40 CFR 60 Appendix B to DEQ. Subpart Db.

TEST COMPLETED June 11 & 12, 1997. [40 CFR 60.49b(b)]

Fuel rate recordkeeping by electronic or hard copy daily. Record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. Determine the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Subpart Db. [40 CFR 60.49b(d)]

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(10) as necessary for each steam generating unit operating day, except as provided under 40 CFR 60.49b(p). Subpart Db. [40 CFR 60.49b(g)]

Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart NNN

Introduce the vent stream into the flame zone if a process heater or boiler is used to comply. Subpart NNN

The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.662(a)]

SPECIFIC REQUIREMENTS

A IID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

IT0336 1151 - GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack • West

- 7 [40 CFR 60.662(a)]
 Total Organic Compounds (less methane and ethane) \geq 98 % reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart NNN The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.662(a)]
 Which Months: All Year Statistical Basis: None specified
 Flow monitored by flow indicator hourly. Monitor the vent stream flow to the boiler or process heater. Install the flow indicator in the vent stream from each distillation unit within an affected facility at a point closest to the inlet of each boiler or process heater and before being joined with any other vent stream. Subpart NNN
 The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN.
 Flow is monitored at unit where the stream originates. [40 CFR 60.663(c)(1)]
 Which Months: All Year Statistical Basis: None specified
 Flow recordkeeping by electronic or hard copy hourly. Record the vent stream flow to the boiler or process heater at least once every hour for each affected facility. Subpart NNN
 The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN.
 Flow is recorded at unit where the stream originates. [40 CFR 60.663(c)(1)]
 Operating time monitored by hour/time monitor at the regulation's specified frequency. Monitor the periods of operation. Subpart NNN The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.663(d)]
 Which Months: All Year Statistical Basis: None specified
 Operating time recordkeeping by electronic or hard copy at the regulation's specified frequency. Make records, of the periods of operation, readily available for inspection. Subpart NNN
 The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.663(d)]
 When a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to seek to comply with 40 CFR 60.662(a), the requirement for an initial performance test is waived, in accordance with 40 CFR 60.8(b). Subpart NNN
 The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.664(c)]
 For a boiler or process heater submit a report containing the information in 40 CFR 60.665(b)(2)(i). Subpart NNN
 The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.665(b)]
 Maintain records of any change in location at which vent stream is introduced into the flame zone. Subpart NNN
 The turbine/duct burner is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.665(c)(4)]
 Introduce the vent stream into the flame zone. Subpart RRR. [40 CFR 60.702(a)]
- 8 [40 CFR 60.663(c)(1)]
- 9 [40 CFR 60.663(c)(1)]
- .0 [40 CFR 60.663(d)]
- .1 [40 CFR 60.663(d)]
- .2 [40 CFR 60.664(c)]
- .3 [40 CFR 60.665(b)]
- .4 [40 CFR 60.665(c)(4)]
- .5 [40 CFR 60.702(a)]

SPECIFIC REQUIREMENTS

All ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

EQT0336 1151 -- GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack - West

- 86 [40 CFR 60.702(a)] Total Organic Compounds (less methane and ethane) $\geq 98\%$ reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart RRR. [40 CFR 60.702(a)]
- 87 [40 CFR 60.703(c)(1)(ii)] Which Months: All Year Statistical Basis: None specified Flow indication monitored by visual inspection/determination monthly. Monitor the seal or closure mechanism (car - seal or lock - and - key type) on any bypass line to ensure that the valve is maintained in a closed position. Subpart RRR
- 88 [40 CFR 60.703(c)(1)(ii)] Flow is monitored at unit where the stream originates. [40 CFR 60.703(c)(1)(ii)]
- 89 [40 CFR 60.703(c)(1)] Which Months: All Year Statistical Basis: None specified Flow indication recordkeeping by electronic or hard copy monthly. Record the position of the valve. Subpart RRR
- Flow recordkeeping done at unit where the stream originates. [40 CFR 60.703(c)(1)(ii)]
- Flow indication monitored by flow indicator once every 15 minutes. Monitor the vent stream flow diverted from being routed to the boiler or process heater for each affected facility, except as provided in 40 CFR 60.703(c)(1)(ii). Install the flow indicator at the entrance to any bypass line that could divert the vent stream from being routed to the boiler or process heater, resulting in its emission to the atmosphere. Subpart RRR
- Flow is monitored at unit where the stream originates. [40 CFR 60.703(c)(1)]
- Which Months: All Year Statistical Basis: None specified
- Flow indication recordkeeping by electronic or hard copy once every 15 minutes. Record the vent stream flow to the boiler or process heater for each affected facility. Subpart RRR
- Flow is recorded at unit where the stream originates. [40 CFR 60.703(c)(1)]
- The requirement for an initial performance test is waived, in accordance with 40 CFR 60.8(b), for a boiler or process heater with a design heat input capacity of 44 MW (150 Btu/hour) or greater used to seek compliance with 40 CFR 60.702(a) when the vent stream is introduced into the boiler or process heater with the primary fuel.
- Subpart RRR. [40 CFR 60.704(b)(5(i-ii))] For a boiler or process heater submit a report containing the information in 40 CFR 60.705(b)(2)(i).
- Subpart RRR. [40 CFR 60.705(b)] Maintain records of any change in location at which vent stream is introduced into the flame zone. Subpart RRR. [40 CFR 60.705(c)(4)] Opacity $<= 20$ percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: None specified
- Total suspended particulate ≤ 0.6 lb/MMBTU of heat input (Complies by using sweet natural gas as fuel).
- Which Months: All Year Statistical Basis: None specified
- Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III:Chapter 15. Record all emissions data in the units of the standard using the averaging time of the standard. Make records available to a representative of DEQ or the U.S. EPA on request.

SPECIFIC REQUIREMENTS

A ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

0336 1151 -- GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack - West

[LAC 33:III.509]

SPECIFIC CONDITION 1

The permittee is authorized to operate in conformity with the specifications submitted to the Louisiana Department of Environmental Quality (LDEQ) as analyzed in LDEQ's document entitled "Preliminary Determination Summary" dated July 10, 1995, and subject to the following emission limitations and other specified conditions. Specifications submitted to LDEQ are contained in the original application dated May 18, 1995.

MAXIMUM ALLOWABLE EMISSIONS RATES

Point No.	Description	Pollutant	Maximum Emissions Lb/hr	Permitted Emissions TPY
1150	GTG/HRSG Stack	PM10	18.3	78.4
		NOx	259.1	1108.9
		CO	198.6	850.2
		SO2	1.4	6.2
		VOC	10.8	46.2
1151	GTG/HRSG Stack	PM10	18.3	78.4
		NOx	259.1	1108.9
		CO	198.6	850.2
		SO2	1.4	6.2
		VOC	10.8	46.2

From PSD-LA-590.

SPECIFIC CONDITION 2

Permittee shall demonstrate compliance with permitted emission limits of Specific Condition 1 by performing stack test using methods found in 40 CFR 60, Appendix A, for the new Gas Turbine Generators (GTGs), as follows:

- A) CO by Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources;
- B) NOx by Method 20 - Determination of Nitrogen Oxides, Sulfur Dioxide, and Oxygen Emissions From Stationary Gas Turbines; or other methods suitable to the Air Quality Division Engineering Section. Permittee shall demonstrate compliance with a 25 ppmv NOx emission limit (on a dry basis corrected to 15% O₂) for the Gas Turbine Generators.

TESTING COMPLETED (June 11 & 12, 1997)

From PSD-LA-590.

SPECIFIC CONDITION 3

Permittee shall comply with all applicable provisions of New Source Performance Standards, 40 CFR 60, Subpart GG-Standards of Performance for Stationary Gas Turbines, in the operations of this Gas Turbine Generator, Emissions Point 1150.

From PSD-LA-590

[LAC 33:III.509]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

03336 1151 -- GTG/HRSG (gas turbine generator/heat recovery steam generator) Stack - West

[LAC 33.III.509]

SPECIFIC CONDITION 4

Permittee shall comply with all applicable provisions of New Source Performance Standards, 40 CFR 60, Subpart Db-Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, for the HRSG duct burners.

[LAC 33.III.509]

SPECIFIC CONDITION 5

Performance testing will be required for the HRSG duct burners to demonstrate compliance with the NOx standard of 0.1 lb/MM BTU with combustion of natural gas only, and 0.2 lb/MM BTU with combustion of natural gas/H2 mix. Because the HRSG duct burners cannot be operated independently from the GTGs; the following test method should be following:

- A) Test stack exhaust while operating the GTGs and the HRSG duct burners simultaneously,
- B) Test stack exhaust while operating the GTGs alone, and
- C) The difference between the two test scenarios above shall be used to determine the emissions rate from the HRSG duct burners alone.

TESTING COMPLETED June 11 & 12, 1997

From PSD-LA-590.

Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Duct burners emit Ethylene Oxide, a Class I TAP. Determined as MACT. Stream is vented to the fuel gas header and introduced with primary fuel into the flame zones of the burners.

03337 1152 -- RO Sulfuric Acid Storage Tank D-4248

[LAC 33.III.5109.A]

Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Tank emits Sulfuric Acid, a Class III TAP. MACT is not required for Class III TAPs.

03338 3104 -- No. 3 Steam Plant East Package Boiler

[40 CFR 60.44b(a)]

Nitrogen oxides <= 0.20 lb/MMBTU (43 ng/l) heat input (expressed as NO₂). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or malfunction. Subpart Db. [40 CFR 60.44b(a), 40 CFR 60.44b(j)]

Which Months: All Year Statistical Basis: Thirty-day rolling average

Conduct performance testing to demonstrate compliance with the nitrogen oxides emission standards in 40 CFR 60.44b by following 40 CFR 60.46b(e) or (f), or following 40 CFR 60.46b(g) and (h), as applicable.

This boiler will comply with 40 CFR 60.46b(e).

Subpart Db. [40 CFR 60.46b(c), 40 CFR 60.46b(e)]

Operate NOx continuous monitoring systems and record data during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Record data during calibration checks, and zero and span adjustments. Subpart Db. [40 CFR 60.48b(c)]

Follow the procedures under 40 CFR 60.13 and 40 CFR 60.48b(e)(2) through (e)(3) for installation, evaluation, and operation of the NOx continuous monitoring systems. Subpart Db. [40 CFR 60.48b(e)]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

QT0338 3104 – No. 3 Steam Plant East Package Boiler

- [08] [40 CFR 60.48b(f)] When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, obtain emission data by using standby monitoring systems, 40 CFR 60, Appendix A, Method 7, Method 7a, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. Subpart Db. [40 CFR 60.48b(f)]
- [09] [40 CFR 60.49b(a)] Submit notification: Due as provided by 40 CFR 60.7. Submit a notification of the actual date of initial startup including design heat input capacity of the affected facility, identification of fuels to be combusted, copy of any federally enforceable requirement limiting annual capacity factor, and all other data as specified in 40 CFR 60.49b(a)(1) through (a)(4). Subpart Db. [40 CFR 60.49b(a)]
- [10] [40 CFR 60.49b(b)] Submit the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in 40 CFR 60 Appendix B to DEQ. Subpart Db. [40 CFR 60.49b(b)]
- [11] [40 CFR 60.49b(d)] Fuel rate recordkeeping by electronic or hard copy daily. Record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. Determine the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Subpart Db. [40 CFR 60.49b(d)]
- [12] [40 CFR 60.49b(g)] Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(10) for each steam generating unit operating day, except as provided under 40 CFR 60.49b(p). Subpart Db. [40 CFR 60.49b(g)]
- [13] [40 CFR 60.49b(h)] Submit excess emissions report: Due by the 30th day following the end of each six-month period. Report any excess emissions which occurred during the reporting period. Subpart Db. [40 CFR 60.49b(h)]
- [14] [40 CFR 60.49b(i)] Submit reports containing the nitrogen dioxide emission rate information recorded under 40 CFR 60.49b(g). Subpart Db. [40 CFR 60.49b(i)]
- [15] [40 CFR 60.49b(o)] Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]
- [16] [40 CFR 60.662(a)] Introduce the vent stream into the flame zone if a process heater or boiler is used to comply. Subpart NNN
- The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.662(a)]
- Total Organic Compounds (less methane and ethane) $\geq 98\%$ reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart NNN
- The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.662(a)]
- Which Months: All Year Statistical Basis: None specified
- Flow monitored by flow indicator hourly. Monitor the vent stream flow to the boiler or process heater. Install the flow indicator in the vent stream from each distillation unit within an affected facility at a point closest to the inlet of each boiler or process heater and before being joined with any other vent stream. Subpart NNN
- The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN
- Flow is monitored at unit where stream originates. [40 CFR 60.663(o)(1)]
- Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS**AI ID: 2083 - Union Carbide Corp - St Charles Operations****Activity Number: PER20070040****Permit Number: 2343-V1****Air - Title V Regular Permit Major Mod****I338 3104 -- No. 3 Steam Plant East Package Boiler**

[40 CFR 60.665(c)(1)]

Flow recordkeeping by electronic or hard copy hourly. Record the vent stream flow to the boiler or process heater at least once every hour for each affected facility. Subpart NNN

The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN

Flow is recorded at unit where stream originates. [40 CFR 60.663(c)(1)]

Operating time monitored by hour/time monitor at the regulation's specified frequency. Monitor the periods of operation. Subpart NNN

The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.663(d)]

Which Months: All Year Statistical Basis: None specified

Operating time recordkeeping by electronic or hard copy at the regulation's specified frequency. Make records, of the periods of operation, readily available for inspection. Subpart NNN

The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.663(d)]

When a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to seek to comply with 40 CFR 60.662(a), the requirement for an initial performance test is waived, in accordance with 40 CFR 60.8(b). Subpart NNN

The boiler is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.664(c)]

For a boiler or process heater submit a report containing the information in 40 CFR 60.665(b)(2)(i). Subpart NNN

The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.665(b)]

Maintain records of any change in location at which vent stream is introduced into the flame zone. Subparts NNN & RRR. [40 CFR 60.665(c)(4), 40 CFR 60.705(c)(4)]

Introduce the vent stream into the flame zone. Subpart RRR. [40 CFR 60.702(a)]

Total Organic Compounds (less methane and ethane) \geq 98 % reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart RRR. [40 CFR 60.702(a)]

Which Months: All Year Statistical Basis: None specified

Flow indication recordkeeping by electronic or hard copy monthly. Record the position of the valve. Subpart RRR

Recordkeeping done at unit where stream originates. [40 CFR 60.703(c)(1)(ii)]

Flow indication recordkeeping by electronic or hard copy once every 15 minutes. Record the vent stream flow to the boiler or process heater for each affected facility. Subpart RRR

Flow recorded at unit where stream originates. [40 CFR 60.703(c)(1)]

For a boiler or process heater submit a report containing the information in 40 CFR 60.705(b)(2)(i). Subpart RRR. [40 CFR 60.705(b)]

Opacity \leq 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

[0338] 3104 -- No. 3 Steam Plant East Package Boiler

[LAC 33:III.1313.C]

Total suspended particulate <= 0.6 lb/MMBTU of heat input.

Which Months: All Year Statistical Basis: None specified

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Make records available to a representative of DEQ or the U.S. EPA on request.

Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ.

Boiler emits Ethylene Oxide, a Class 1 TAP. Stream will be vented to the fuel gas header and introduced with primary fuel into the flame zones of the boilers. Determined as MACT.

[0339] 3105 -- No. 3 Steam Plant West Package Boiler

[40 CFR 60.44b(a)]

Nitrogen oxides <= 0.20 lb/MMBTU (43 ng/J) heat input (expressed as NO2). The nitrogen oxide standards apply at all times, including periods of startup, shutdown, or mal function. Subpart Db. [40 CFR 60.44b(a), 40 CFR 60.44b(i)]

Which Months: All Year Statistical Basis: Thirty-day rolling average

Conduct performance testing to demonstrate compliance with the nitrogen oxides emission standards in 40 CFR 60.44b by following 40 CFR 60.46b(e) or (f), or following 40 CFR 60.46b(g) and (h), as applicable. Subpart Db

This boiler will comply with 40 CFR 60.46b(e).

[40 CFR 60.46b(c), 40 CFR 60.46b(e)]

Operate NOx continuous monitoring systems and record data during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Record data during calibration checks, and zero and span adjustments. Subpart Db. [40 CFR 60.48b(c)]

Follow the procedures under 40 CFR 60.13 and 40 CFR 60.44b(e)(2) through (e)(3) for installation, evaluation, and operation of the NOx continuous monitoring systems. Subpart Db. [40 CFR 60.48b(e)]

When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero span adjustments, obtain emission data by using standby monitoring systems, 40 CFR 60, Appendix A, Method 7, Method 7a, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 2/2 out of 30 successive steam generating unit operating days. Subpart Db. [40 CFR 60.48b(f)]

Submit notification: Due as provided by 40 CFR 60.7. Submit a notification of the actual date of initial startup including design heat input capacity of the affected facility, identification of fuels to be combusted, copy of any federally enforceable requirement limiting annual capacity factor, and all other data as specified in 40 CFR 60.49b(a)(1) through (a)(4). Subpart Db. [40 CFR 60.49b(a)]

Submit the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in 40 CFR 60 Appendix B to DEQ. Subpart Db. [40 CFR 60.49b(b)]

Fuel rate recordkeeping by electronic or hard copy daily. Record the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. Determine the annual capacity factor on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. Subpart Db. [40 CFR 60.49b(d)]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
Activity Number: PER20070040
Permit Number: 2343-V1
Air - Title V Regular Permit Major Mod

T0339 3105 -- No. 3 Steam Plant West Package Boiler

- 2 [40 CFR 60.49b(g)] Equipment/operational data recordkeeping by electronic or hard copy continuously. Maintain records of the information listed in 40 CFR 60.49b(g)(1) through (g)(10) for each steam generating unit operating day, except as provided under 40 CFR 60.49b(p). Subpart Db. [40 CFR 60.49b(p)]
- 3 [40 CFR 60.49b(h)] Submit excess emissions report: Due by the 30th day following the end of each six-month period. Report any excess emissions which occurred during the reporting period. Subpart Db. [40 CFR 60.49b(h)]
- 4 [40 CFR 60.49b(i)] Submit reports containing the nitrogen dioxide emission rate information recorded under 40 CFR 60.49b(g). Subpart Db. [40 CFR 60.49b(i)]
- 5 [40 CFR 60.49b(o)] Maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. Subpart Db. [40 CFR 60.49b(o)]
- 5 [40 CFR 60.662(a)] Introduce the vent stream into the flame zone if a process heater or boiler is used to comply. Subpart NNN
- The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.662(a)]
- 7 [40 CFR 60.662(a)] Total Organic Compounds (less methane and ethane) $\geq 98\%$ reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart NNN
- The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.662(a)]
- Which Months: All Year Statistical Basis: None specified
- Flow monitored by flow indicator hourly. Monitor the vent stream flow to the boiler or process heater. Install the flow indicator in the vent stream from each distillation unit within an affected facility at a point closest to the inlet of each boiler or process heater and before being joined with any other vent stream. Subpart NNN
- The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN
- Flow is monitored at unit where the stream originates. [40 CFR 60.663(c)(1)]
- Which Months: All Year Statistical Basis: None specified
- Flow recordkeeping by electronic or hard copy hourly. Record the vent stream flow to the boiler or process heater at least once every hour for each affected facility. Subpart NNN
- The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN
- Flow is recorded at unit where the stream originates. [40 CFR 60.663(c)(1)]
- Operating time monitored by hour/time monitor at the regulation's specified frequency. Monitor the periods of operation. Subpart NNN
- The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.663(d)]
- Which Months: All Year Statistical Basis: None specified
- Operating time recordkeeping by electronic or hard copy at the regulation's specified frequency. Make records, of the periods of operation, readily available for inspection. Subpart NNN
- The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.663(d)]
- 0 [40 CFR 60.663(d)]
- 1 [40 CFR 60.663(d)]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

I339 3105 -- No. 3 Steam Plant West Package Boiler

[40 CFR 60.664(c)]

When a boiler or process heater with a design heat input capacity of 44 MW (150 million Btu/hour) or greater is used to seek to comply with 40 CFR 60.662(a), the requirement for an initial performance test is waived, in accordance with 40 CFR 60.8(b). Subpart NNN The boiler is used as a control device for NNN affected sources. As per the USEPA letter dated February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.664(c)]

[40 CFR 60.665(b)]

For a boiler or process heater submit a report containing the information in 40 CFR 60.665(b)(2)(i). Subpart NNN The boiler is used as a control device for NNN affected sources. As per the USEPA letter of February 24, 1998, provisions of Subpart RRR will be utilized to demonstrate compliance with Subpart NNN. [40 CFR 60.665(b)]

[40 CFR 60.665(c)(4)]

Maintain records of any change in location at which vent stream is introduced into the flame zone. Subparts NNN & RRR. [40 CFR 60.665(c)(4), 40 CFR 60.705(c)(4)]

Introduce the vent stream into the flame zone. Subpart RRR. [40 CFR 60.702(a)]

Total Organic Compounds (less methane and ethane) $\geq 98\%$ reduction by weight, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. Subpart RRR. [40 CFR 60.702(a)]

[40 CFR 60.703(c)(1)(ii)]

Which Months: All Year Statistical Basis: None specified

Flow indication recordkeeping by electronic or hard copy monthly. Record the position of the valve. Subpart RRR

Recordkeeping done at unit where the stream originates. [40 CFR 60.703(c)(1)(ii)]

Flow indication recordkeeping by electronic or hard copy once every 15 minutes. Record the vent stream flow to the boiler or process heater for each affected facility. Subpart RRR

[40 CFR 60.705(b)]

The vent stream flow is recorded at unit where the stream originates. [40 CFR 60.703(c)(1)]

For a boiler or process heater submit a report containing the information in 40 CFR 60.705(b)(2)(i). Subpart RRR. [40 CFR 60.705(b)]

Opacity ≤ 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, changing of an incinerator, equipment changes, ash removal or trapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.

[LAC 33:III.131.C]

Which Months: All Year Statistical Basis: None specified

Total suspended particulate ≤ 0.6 lb/MMBTU of heat input.

[LAC 33:III.151.3]

Which Months: All Year Statistical Basis: None specified

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Record and keep on site for at least two years the data required to demonstrate exemption from the provisions of LAC 33:III.Chapter 15. Make records available to a representative of DEQ or the U.S. EPA on request.

[LAC 33:III.5109.A]

Control emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ. Boiler emits Ethylene Oxide, a Class 1 TAP. Stream will be vented to the fuel gas header and introduced with primary fuel into the flame zones of the boilers. Determined as MACT.

0847 3106 -- EOC Dispatch Emergency Generator (Diesel)

[40 CFR 60.4205(b)]

Comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power. Subpart III. [40 CFR 60.4205(b)]

Operate and maintain stationary CI ICE according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. Subpart III.

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

I10847 3106 -- EOC Dispatch Emergency Generator (Diesel)

- '6 [40 CFR 60.4207(a)] Beginning October 1, 2007, use diesel fuel that meets the requirements of 40 CFR 80.510(a). Subpart IIII. [40 CFR 60.4207(a)]
 '7 [40 CFR 60.4207(b)] Beginning October 1, 2010, use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. Subpart IIII. [40 CFR 60.4207(b)]
- Operating time monitored by hour/time monitor continuously during operation. Install a non-resettable hour meter prior to startup of the engine.
 Subpart IIII. [40 CFR 60.4209(a)]
- Which Months: All Year Statistical Basis: None specified
 Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, only change those settings that are permitted by the manufacturer. Also meet the requirements of 40 CFR 89, 94 and/or 1068, as applicable. Subpart IIII. [40 CFR 60.4211(a)]
 Ensure engine is certified to the emission standards in 40 CFR 60.4204(b), or 40 CFR 60.4025(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. Install and configure according to the manufacturer's specifications. Subpart IIII. [40 CFR 60.4211(c)]
 Submit petition to DEQ for approval of operating parameters to be monitored continuously. Include the information described in 40 CFR 60.4211(d)(2)(v). Subpart IIII. [40 CFR 60.4211(d)(2)(v)]
 Conduct performance tests according to 40 CFR 60.4212(a) through (d). Subpart IIII.
- Opacity <= 20 percent, except during the cleaning of a fire box or building of a new fire, soot blowing or lancing, charging of an incinerator, equipment changes, ash removal or rapping of precipitators, which may have an opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
- Which Months: All Year Statistical Basis: None specified
 Opacity <= 20 percent; except emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.
- Which Months: All Year Statistical Basis: Six-minute average
 Equipment/operational data recordkeeping by electronic or hard copy once initially and annually. Record and retain at the site sufficient data to show annual potential sulfur dioxide emissions.

I1G0006 196T -- Fugitives

- '6 [LAC 33:III.1311.C] Equip all rotary pumps and compressors handling volatile organic compounds having a true vapor pressure of 1.5 psia or greater at handling conditions with mechanical seals or other equivalent equipment.
 Comply with LAC 33:III.2121 by implementing the Louisiana Consolidated Fugitive Emission Program Guidelines. Compliance is achieved through compliance with Louisiana MACT Determination for Non-HON Sources Streamlined Fugitive Emissions Program.
 Attach a weatherproof and readily visible identification, marked with the equipment identification, to leaking equipment, as specified in Subsection Q.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
 Comply with the test methods and procedures in Section P, as specified in Subsections P.1 through P.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

SPECIFIC REQUIREMENTS**AI ID: 2083 - Union Carbide Corp - St Charles Operations****Activity Number: PER20070040****Permit Number: 2343-V1****Air - Title V Regular Permit Major Mod****0006 196T -- Fugitives**

[LAC 33.III.5109.A]

Compressors (no detectable emissions): Demonstrate that the compressor is operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection P.3, as specified in Paragraph E. 10.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsections E.2 through E.9.

[LAC 33.III.5109.A]

Compressors (no detectable emissions): VOC, Total monitored by the regulation's specified method(s) once initially upon designation, annually, and at other times requested by DEQ, as specified in Paragraph E.10.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsections E.2 through E.9.

[LAC 33.III.5109.A]

Compressors (seal system): Operate with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure, or equip with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section N, or equip with a system that purges the barrier fluid into a process stream with zero VOTAP emission to the atmosphere, as specified in Subsection E.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

[LAC 33.III.5109.A]

Compressors (seal system): VOC, Total monitored by the regulation's specified method(s) quarterly, as specified in Subsection E.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor to detect leaks using the methods specified in Section P. If an instrument reading of 5000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection E.8.

[LAC 33.III.5109.A]

Which Months: All Year Statistical Basis: None specified
Compressors: Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both, as specified in Paragraph E.6.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

[LAC 33.III.5109.A]

Compressors: Ensure that the barrier fluid is not in VOTAP service and, if the compressor is covered by a standard under NSPS, is not in VOC service, as specified in Subsection E.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

[LAC 33.III.5109.A]

Compressors: Equip each barrier fluid system as described in Subsections E.2 through E.4 with a sensor that will detect failure of the seal system, the barrier fluid system, or both, as specified in Subsection E.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

[LAC 33.III.5109.A]

Compressors: Equip with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section N, except as provided for in Subsection E.10, as specified in Paragraph E.9 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Alternative to Subsections E.1 through E.7.

[LAC 33.III.5109.A]

Compressors: Equip with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to the atmosphere, except as provided for in Subsections C.4, E.9 and E.10, as specified in Subsection E.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

[LAC 33.III.5109.A]

Compressors: Equipment/operational data monitored by technically sound method daily, as specified in Paragraph E.6.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Check each sensor as required in Subsection E.5 daily or equip with an audible alarm unless the compressor is located within the boundary of an unmanned plant site. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on criterion determined under Paragraph E.6.b, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection E.8.

[LAC 33.III.5109.A]

Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

30006 196T -- Fugitives

[LAC 33:III.5109.A] Compressors: Repair leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection E.8 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected.

Connectors in gas/vapor service and in light liquid service (≤ 1 inch in diameter): Comply with the requirements of Section K, as specified in Paragraph O.8.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Paragraph O.2.

Connectors in gas/vapor service and in light liquid service (≤ 1 inch in diameter): VOC, Total monitored by the regulation's specified method(s) within 90 days after being returned to VOTAP service. Monitor each connector that has been opened or has otherwise had the seal broken, as specified in Paragraph O.8.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Section P. If the follow-up monitoring detects a leak, initiate repair provisions specified in Subsection O.9. Comply with this requirement instead of the requirements in Paragraph O.2.

Which Months: All Year Statistical Basis: None specified

Connectors in gas/vapor service and in light liquid service (inaccessible or glass or glass-lined): Repair leaks as soon as practicable, but no later than 15 calendar days after detecting a leak by visual, audible, olfactory or other means, except as specified in Subsection O.8, as specified in Subsection O.11.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after the leak is detected, as specified in Subsection O.11.c of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the monitoring requirements of Subsection O.2 through O.6 and the recordkeeping and reporting requirements.

Connectors in gas/vapor service and in light liquid service (opened or otherwise had the seal broken): VOC, Total monitored by the regulation's specified method(s) within 90 days after being returned to VOTAP service. Monitor each connector that has been opened or has otherwise had the seal broken, including those determined to be unrepairable prior to process unit shutdown, as specified in Paragraph O.8.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Section P. If the follow-up monitoring detects a leak, initiate repair provisions specified in Subsection O.9, unless it is determined to be unrepairable, in which case it is counted as unrepairable.

Which Months: All Year Statistical Basis: None specified

Connectors in gas/vapor service and in light liquid service (percent of leaking connectors ≤ 2): VOC, Total monitored by the regulation's specified method(s) annually, as specified in Subsections O.2 and O.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitoring must be performed within one year from the previous monitoring. Monitor using the method specified in Section P. If an instrument reading ≥ 1000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection O.9, except as provided in Section M.

Which Months: All Year Statistical Basis: None specified

[LAC 33:III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER2007040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

30006 196T -- Fugitives

[LAC 33.III.5109.A]

Connectors in gas/vapor service and in light liquid service (percent of leaking connectors > 2): VOC, Total monitored by the regulation's specified method(s) quarterly until good performance is obtained or until four quarterly monitorings have been performed, as specified in Subsections O.2 and O.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If good performance has not been obtained after four quarters of monitoring, monitor the remaining unchecked connectors within six months of the last quarterly monitoring period, as specified in Subsection O.6 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If monitoring of the remaining connectors indicates good performance, monitor in accordance with Subsection O.4. If monitoring of the remaining connectors indicates that good performance has not been obtained, monitor in accordance with Subsection O.5. Monitor using the method specified in Section P. If an instrument reading ≥ 1000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection O.9, except as provided in Section M.

Which Months: All Year Statistical Basis: None specified

Connectors in gas/vapor service and in light liquid service (unsafe-to-monitor): Determine that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with Subsections O.2 through O.6, as specified in Subsection O.10.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection O.2 through O.6.

Connectors in gas/vapor service and in light liquid service (unsafe-to-monitor): VOC, Total monitored by the regulation's specified method(s) at the regulation's specified frequency. Maintain a written plan that requires monitoring as frequently as practicable during safe to monitor periods, as specified in Subsection O.10.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method in Section P. Comply with this requirement instead of the requirements in Subsection O.2 through O.6.

Which Months: All Year Statistical Basis: None specified

Connectors in gas/vapor service and in light liquid service (welded completely around the circumference of the interface or physically removed and the pipe welded together): Equipment/operational data monitored by the regulation's specified method(s) within three months after being welded. Check the integrity of the weld by monitoring according to the procedures in Section P or by testing using x-ray, acoustic monitoring, hydrotesting, or other applicable method, as specified in Subsection O.7 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection O.

Which Months: All Year Statistical Basis: None specified

Connectors in gas/vapor service and in light liquid service: Calculate the percent leaking connectors using the equation in Subsection O.12 for use in determining the monitoring frequency, as specified in Subsection O.12 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Connectors in gas/vapor service and in light liquid service: Repair Leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Subsection O.8. Make a first attempt at repair no later than 5 calendar days after each leak is detected. If a leak is detected, monitor the for leaks within the first 90 days after its repair, as specified in Subsection O.9 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Connectors in gas/vapor service and in light liquid service: VOC, Total monitored by the regulation's specified method(s) once initially, as specified in Subsections O.1 and O.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Section P. If an instrument reading ≥ 1000 ppm is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection O.9, except as provided in Section M.

Which Months: All Year Statistical Basis: None specified

[LAC 33.III.5109.A]

?

[LAC 33.III.5109.A]

?

[LAC 33.III.5109.A]

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040

Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

30006 196T -- Fugitives

3 [LAC 33:III.5109.A]

Emissions of toxic air pollutants to a degree that constitutes Maximum Achievable Control Technology (MACT) as approved by DEQ.

Emits ethylene oxide, a Class I TAP.

Comply with LA MACT Determination for non-HON Equipment Leaks (Streamlined Fugitive Emissions Program).

Monitor using Method 21 and a VOC analyzer as part of the Leak Detection and Repair (LDAR) program and as indicated under the Louisiana Consolidated Fugitive Program Guidelines.

Maintain daily records of monitoring and repairs.

Report required information in accordance with the Louisiana Consolidated Fugitive Program Guidelines.

Delay of Repair: Repair equipment before the end of the next process unit shutdown, if repair is technically infeasible without a process unit shutdown, as specified in Subsection M.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Equipment/operational data recordkeeping by electronic or hard copy at the regulation's specified frequency. Keep records of the information specified in Subsections Q.1 through Q.13 as applicable, as specified in Section Q of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Identify each piece of equipment in a process unit subject to this MACT determination such that it can be distinguished readily from equipment that is not subject to this MACT determination, as specified in Subsection C.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Instrument systems and pressure relief devices in liquid service; and pumps, valves, connectors, and agitators in heavy liquid service: Repair leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection K.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected.

Instrument systems and pressure relief devices in liquid service; and pumps, valves, connectors, and agitators in heavy liquid service: VOC, Total monitored by the regulation's specified method(s) within 5 days of finding evidence of a potential leak by visual, audible, olfactory, or any other detection method, as specified in Section K.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Subsection P.2. If an instrument reading of 10000 ppm or greater for agitators, 2000 ppm or greater for pumps or 1000 ppm or greater for valves, connectors, instrument systems, or pressure relief devices is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection K.3.

Which Months: All Year Statistical Basis: None specified Open-ended valves or lines (equipped with a second valve): Operate in a manner such that the valve on the process fluid end is closed before the second valve is closed, as specified in Subsection H.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Open-ended valves or lines: Equip with a cap, blind flange, plug, or a second valve that seals the open end at all times except during operations requiring process fluid flow through the open-ended valve or line or during maintenance and repair, as specified in Subsection H.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Open-ended valves or lines: Monitor and repair in accordance with Section I, as specified in Subsection H.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Pressure relief device in gas/vapor service: After each pressure release, return to a condition of no leakage, as indicated by an instrument reading of less than 500 ppm, as soon as practicable, but no later than five calendar days after each pressure release, except as provided in Section M, as specified in Section F.2.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

0006 196T -- Fugitives

[LAC 33:III.5109.A]

Pressure relief device in gas/vapor service: Equip with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section N, as specified in Section F.2.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Alternative to Subsections F.1 and F.2.

[LAC 33:III.5109.A]

Pressure relief device in gas/vapor service: VOC, Total < 500 ppm except during pressure releases, as measured by the method specified in Section P.3, as specified in Section F.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

[LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

Pressure relief device in gas/vapor service: VOC, Total monitored by the regulation's specified method(s) within 5 days (calendar) after the pressure release to confirm the condition of no leakage, as indicated by an instrument reading of less than 500 ppm above background, as specified in Section F.2.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Subsection P.3.

Which Months: All Year Statistical Basis: None specified

Pumps in light liquid service (dual mechanical seal system): Determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both, as specified in Subparagraph D.4.e.ii of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1.

[LAC 33:III.5109.A]

Pumps in light liquid service (dual mechanical seal system): Ensure that the barrier fluid is not in VOTAP service and, if the pump is covered by standards under NSPS, is not in VOC service, as specified in Paragraph D.4.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1.

[LAC 33:III.5109.A]

Pumps in light liquid service (dual mechanical seal system): Equip each barrier fluid system with a sensor that will detect failure of the seal system, the barrier fluid system, or both, as specified in Paragraph D.4.c of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1.

[LAC 33:III.5109.A]

Pumps in light liquid service (dual mechanical seal system): Equipment/operational data monitored by visual inspection/determination daily. Check sensor daily or equip with an audible alarm, as specified in Subparagraph D.4.e.i of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in Paragraph D.4.e.ii, a leak is detected. If a leak is detected, initiate repair provisions specified in Paragraphs D.3.a and D.3.b. Comply with this requirement instead of the requirements in Subsection D.1.

[LAC 33:III.5109.A]

Which Months: All Year Statistical Basis: None specified

Pumps in light liquid service (dual mechanical seal system): Operate with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or equip with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section N, or equip with a system that purges the barrier fluid into a process stream with zero VOTAP emissions to the atmosphere, as specified in Paragraph D.4.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection D.1.

[LAC 33:III.5109.A]

Pumps in light liquid service (dual mechanical seal system): Presence of a leak monitored by visual inspection/determination weekly (calendar), as specified in Paragraph D.4.d of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If there are indications of liquids dripping from the pump seal, a leak is detected. If a leak is detected, initiate repair provisions specified in Paragraphs D.3.a and D.3.b. Comply with this requirement instead of the requirements in Subsection D.1.

Which Months: All Year Statistical Basis: None specified

TFOR0147

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

0006 196T - Fugitives

[LAC 33:III.5109.A]

Pumps in light liquid service (unmanned plant site): Presence of a leak monitored by visual inspection/determination at the regulation's specified frequency, as specified in Subparagraph D.6 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor pump as often as practicable and at least monthly. Comply with this requirement instead of the weekly visual inspection requirements in Paragraphs D.1.b and D.4.d, and the daily requirements in Paragraph D.4.e.i.

Which Months: All Year Statistical Basis: None specified

Pumps in light liquid service: Equip with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section N, as specified in Paragraph D.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Alternative to Subsections D.1 through D.4.

Pumps in light liquid service: Presence of a leak monitored by visual inspection/determination weekly (calendar), as specified in Paragraph D.1.b of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If there are indications of liquids dripping from the pump seal, monitor within 5 days by the methods specified in Subsection P.2.

Which Months: All Year Statistical Basis: None specified

Pumps in light liquid service: Repair leaks as soon as practicable, but not later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection D.3 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected.

Pumps in light liquid service: VOC, Total monitored by the regulation's specified method(s) quarterly. Monitor to detect leaks using the methods specified in Subsection P.2, except as provided in Subsection C.4 and Subsections D.4, D.5, and D.6, as specified in Paragraph D.1.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). If an instrument reading of 2000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions as specified in Subsection D.3.

Which Months: All Year Statistical Basis: None specified

Sampling connection systems (closed-purge or closed-vent system): Return the purged process fluid directly to the process line with zero VOTAP emissions to the atmosphere, or collect and recycle the purged process fluid with zero VOTAP emissions to the atmosphere, or be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of Section N, as specified in Subsection G.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Sampling connection systems: Equip with a closed-purge system or closed-vent system, except as provided for in Section C, as specified in Subsection G.1 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Ensure that this system collects or captures the sample purge for return to the process.

Submit report: Due semiannually starting six months after the initial report required in Subsection R.1. Include the information specified in Paragraphs R.2.a through R.2.e, as specified in Subsection R.2 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Surge control vessels and bottoms receivers: Equip each surge control vessel and bottoms receiver that is not routed back to the process with a closed-vent system that routes the organic vapors vented from the vessel back to the process or to a control device that complies with the requirements of Section N or to an alternate method of control which has been approved by DEQ, as specified in Section L of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

VOC, Total monitored by technically sound method within 90 days of placing equipment back in service that had been physically removed from service, disassembled or dismantled to determine if it is leaking, as specified in Subsection C.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Which Months: All Year Statistical Basis: None specified

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
Activity Number: PER20070040
Permit Number: 2343-V1
Air - Title V Regular Permit Major Mod

0006 196T .. Fugitives

[LAC 33:III.5109.A]

VOC, Total recordkeeping by logbook within 90 days of placing equipment back in service that had been physically removed from service, disassembled or dismantled. Maintain records as required in Subsection Q.5, as specified in Subsection C.5 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).

Valves in gas/vapor service and in light liquid service (difficult-to-monitor): Demonstrate that the valve cannot be monitored without elevating the monitoring personnel more than two meters above a support service, as specified in Subsection I.6.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection I.1.

Valves in gas/vapor service and in light liquid service (difficult-to-monitor): VOC, Total monitored by the regulation's specified method(s) at the regulation's specified frequency. Maintain a written plan that requires monitoring of the valve at least once per calendar year, as specified in Subsection I.6.c of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Monitor using the method specified in Subsection P.2. Comply with this requirement instead of the requirements in Subsection I.1.

Which Months: All Year Statistical Basis: None specified
 Valves in gas/vapor service and in light liquid service (percent leaking valves ≤ 2 for two consecutive quarterly leak detection periods): VOC, Total monitored by the regulation's specified method(s) semiannually, as specified in Paragraph J.2.a of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Section P. If the percentage of valves leaking is greater than 2 for any monitoring period, comply with the requirements as described in Section I, as specified in Paragraph J.2.c of the Louisiana MACT Determination for Refinery Equipment Leaks (July 26, 1994). Optional alternative to quarterly monitoring.

Which Months: All Year Statistical Basis: None specified
 Valves in gas/vapor service and in light liquid service (percent leaking valves ≤ 2 for two consecutive semiannual leak detection periods): VOC, Total monitored by the regulation's specified method(s) annually, as specified in Paragraph J.2.b of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Section P. If the percentage of valves leaking is greater than 2 for any monitoring period, comply with the requirements as described in Section I, as specified in Paragraph J.2.c of the Louisiana MACT Determination for Refinery Equipment Leaks (July 26, 1994). Optional alternative to quarterly monitoring.

Which Months: All Year Statistical Basis: None specified
 Valves in gas/vapor service and in light liquid service (percent leaking valves ≥ 4): VOC, Total monitored by the regulation's specified method(s) monthly, as specified in Subsection I.7 of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Subsection P.2. Initiate monthly monitoring within 60 days of the previous monitoring and continue until the percent of leaking valves is less than 4, at which time monitoring can be performed in accordance with Subsection I.1.

Which Months: All Year Statistical Basis: None specified
 Valves in gas/vapor service and in light liquid service (skip period leak detection and repair): Notify DEQ 30 days before implementing any of the alternate provisions of Section J, as specified in Subsection R.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995).
 Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): Demonstrate that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection I.1, as specified in Subsection I.5.a of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Comply with this requirement instead of the requirements in Subsection I.1.

TPOR0147

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-Y1
 Air - Title V Regular Permit Major Mod

G0006 196T -- Fugitives

0 [LAC 33:III.5109.A]

Valves in gas/vapor service and in light liquid service (unsafe-to-monitor): VOC, Total monitored by the regulation's specified method(s) at the regulation's specified frequency. Maintain a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times, as specified in Subsection I.5.b of the Louisiana MACT Determination for Refinery Equipment Leaks (July 26, 1994). Monitor using the method specified in Subsection P.2. Comply with this requirement instead of the requirements in Subsection I.1.

Which Months: All Year Statistical Basis: None specified

Valves in gas/vapor service and in light liquid service: Repair leaks as soon as practicable, but no later than 15 calendar days after a leak is detected, except as provided in Section M, as specified in Subsection I.3 and I.4 of the Louisiana MACT Determination for Non-HON Equipment Leaks (March 30, 1995). Make a first attempt at repair no later than 5 calendar days after each leak is detected.

Valves in gas/vapor service and in light liquid service: VOC, Total monitored by the regulation's specified method(s) quarterly, as specified in Subsection I.1 of the Louisiana MACT Determination for Non-HON Equipment Leak (March 30, 1995). Monitor using the method specified in Subsection P.2. If an instrument reading of 1000 ppm or greater is measured, a leak is detected. If a leak is detected, initiate repair provisions specified in Subsection I.3.

Which Months: All Year Statistical Basis: None specified

F0006 Energy Systems Unit

3 [40 CFR 52.21]

4 [40 CFR 60]

5 [40 CFR 63.]

6 [40 CFR 70.5(a)(1)(iii)]

7 [40 CFR 70.6(a)(3)(iii)(A)]

8 [40 CFR 70.6(a)(3)(iii)(B)]

9 [40 CFR 70.6(c)(5)(iv)]

0 [LAC 33:III.1103]

1 [LAC 33:III.1109.B]

Comply with the requirements of PSD-LA-590 and PSD-LA-707. This permit includes provisions of the Prevention of Significant Deterioration (PSD) review from Permits PSD-LA-590 and PSD-LA-707.

All affected facilities shall comply with all applicable provisions in 40 CFR 60 Subpart A.

All affected facilities shall comply with all applicable provisions in 40 CFR 63 Subpart A.

Submit Title V permit application for renewal: Due 180 calendar days before permit expiration date. [40 CFR 70.5(a)(1)(iii)]

Submit Title V monitoring results report: Due semiannually, by March 31st and September 30th for the preceding periods encompassing July through December and January through June, respectively. Submit reports to the Office of Environmental Compliance, Surveillance Division. Certify reports by a responsible company official. Clearly identify all instances of deviations from permitted monitoring requirements. For previously reported deviations, in lieu of attaching the individual deviation reports, clearly reference the communication(s)/correspondence(s) constituting the prior report, including the date the prior report was submitted. [40 CFR 70.6(a)(3)(iii)(A)]

Submit Title V excess emissions report: Due quarterly, by June 30, September 30, December 31, March 31. Submit reports of all permit deviations to the Office of Environmental Compliance, Surveillance Division. Certify all reports by responsible official in accordance with 40 CFR 70.5(d). The reports submitted on March 31 and September 30 may be consolidated with the semi-annual reports required by 40 CFR 70.6(a)(3)(iii)(A) as long as the report clearly indicates this and all required information is included and clearly delineated in the consolidated report. [40 CFR 70.6(a)(3)(iii)(B)]

Submit Title V compliance certification: Due annually, by the 31st of March. Submit to the Office of Environmental Compliance, Surveillance Division. [40 CFR 70.6(c)(5)(iv)]

Emissions of smoke which pass onto or across a public road and create a traffic hazard by impairment of visibility as defined in LAC 33:III.1111 or intensify an existing traffic hazard condition are prohibited.
 Outdoor burning of waste material or other combustible material is prohibited.

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

F0006 Energy Systems Unit

- 2 [LAC 33:III.1303.B] Emissions of particulate matter which pass onto or across a public road and create a traffic hazard by impairment of visibility or intensify an existing traffic hazard condition are prohibited.
- 3 [LAC 33:III.2113.A] Maintain best practical housekeeping and maintenance practices at the highest possible standards to reduce the quantity of organic compounds emissions. Good housekeeping shall include, but not be limited to, the practices listed in LAC 33:III.2113.A.1-5.
- 4 [LAC 33:III.219] Failure to pay the prescribed application fee or annual fee as provided herein, within 90 days after the due date, will constitute a violation of these regulations and shall subject the person to applicable enforcement actions under the Louisiana Environmental Quality Act including, but not limited to, revocation or suspension of the applicable permit, license, registration, or variance.
- 5 [LAC 33:III.2901.D] Discharges of odorous substances at or beyond property lines which cause a perceived odor intensity of six or greater on the specified eight point butanol scale as determined by Method 41 of LAC 33:III.2901.G are prohibited.
- 5 [LAC 33:III.2901.F] If requested to monitor for odor intensity, take and transport samples in a manner which minimizes alteration of the samples either by contamination or loss of material. Evaluate all samples as soon after collection as possible in accordance with the procedures set forth in LAC 33:III.2901.G.
- 7 [LAC 33:III.5105.A.1] Do not construct or modify any stationary source subject to any standard set forth in LAC 33:III.Chapter 51.Subchapter A without first obtaining written authorization from DEQ in accordance with LAC 33:III.Chapter 51.Subchapter A, after the effective date of the standard.
- 3 [LAC 33:III.5105.A.2] Do not cause a violation of any ambient air standard listed in LAC 33:III.Table 51.2, unless operating in accordance with LAC 33:III.5109.
- 3 [LAC 33:III.5105.A.3] Do not build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission that would otherwise constitute a violation of an applicable standard.
- 3 [LAC 33:III.5105.A.4] Do not fail to keep records, notify, report or revise reports as required under LAC 33:III.Chapter 51.Subchapter A.
- 1 [LAC 33:III.5107.A.2] Submit Annual Emissions Report (TIEDI): Due annually, by the 1st of July, to the Office of Environmental Assessment, Environmental Evaluation Division in a form specified by the department. Identify the quantity of emissions in the previous calendar year for any toxic air pollutant listed in Table 51.1 or Table 51.3.
- 2 [LAC 33:III.5107.A.3] Include a certification statement with initial and subsequent annual emission reports and revisions to any emission report to attest that the information contained in the emission report is true, accurate, and complete, and signed by a responsible official, as defined in LAC 33:III.502. Include the full name of the responsible official, title, signature, date of signature and phone number of the responsible official. The certification statement shall read: "I certify, under penalty of perjury, that the emissions data provided is accurate to the best of my knowledge, information, and belief, and I understand that submitting false or misleading information will expose me to prosecution under state regulations"
- 3 [LAC 33:III.5107.B.1] Submit notification: Due to the Department of Public Safety 24-hour Louisiana Emergency Hazardous Materials Hotline at (225) 925-6595 immediately, but no later than 1 hour, after any discharge of a toxic air pollutant into the atmosphere which results or threatens to result in an emergency condition (a condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property).
- 4 [LAC 33:III.5107.B.2] Submit notification: Due to the Office of Environmental Compliance, except as provided in LAC 33:III.5107.B.6, no later than 24 hours after the beginning of any unauthorized discharge into the atmosphere of a toxic air pollutant as a result of bypassing an emission control device, when the emission control bypass was not the result of an upset, and the quantity of the unauthorized bypass is greater than or equal to the lower of the Minimum Emission Rate (MER) in LAC 33:III.Chapter 51.Table 51.1 or a reportable quantity (RQ) in LAC 33:III.3931, or the quantity of the unauthorized bypass is greater than one pound and there is no MER or RQ for the substance in question. Submit notification in the manner provided in LAC 33:III.3923.

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

NF0006 Energy Systems Unit

- 65 [LAC 33:III.5107.B.3] Submit notification: Due to the Office of Environmental Compliance immediately, but in no case later than 24 hours after any unauthorized discharge of a toxic air pollutant into the atmosphere that does not cause an emergency condition, the rate or quantity of which is in excess of that allowed by permit, compliance schedule, or variance, or for upset events that exceed the reportable quantity in LAC 33:1.3931, except as provided in LAC 33:III.5107.B.6. Submit notification in the manner provided in LAC 33:1.3923.
- 66 [LAC 33:III.5107.B.4] Submit written report: Due within seven calendar days of learning of any such discharge or equipment bypass as referred to in LAC 33:III.5107.B.1 through 3. Submit report to the Office of Environmental Compliance by certified mail. Include the information specified in LAC 33:III.5107.B.4.a.i through viii.
- Report all discharges to the atmosphere of a toxic air pollutant from a safety relief device, a line or vessel rupture, a sudden equipment failure, or a bypass of an emission control device, regardless of quantity, in the annual emissions report and where otherwise specified. Include the identity of the source, the date and time of the discharge, and the approximate total loss during the discharge.
- Achieve compliance with ambient air standards unless it can be demonstrated to the satisfaction of DEQ that compliance with an ambient air standard would be economically infeasible; that emissions could not reasonably be expected to pose a threat to public health or the environment, and that emissions would be controlled to a level that is Maximum Achievable Control Technology.
- Determine the status of compliance, beyond the property line, with applicable ambient air standards listed in LAC 33:III.5112.Table 51.2.
- Develop a standard operating procedure (SOP) within 120 days after achieving or demonstrating compliance with the standards specified in LAC 33:III.Chapter 51. Detail in the SOP all operating procedures or parameters established to ensure that compliance with the applicable standards is maintained and address operating procedures for any monitoring system in place, specifying procedures to ensure compliance with LAC 33:III.5113.C.5. Make a written copy of the SOP available on site or at an alternate approved location for inspection by DEQ. Provide a copy of the SOP within 30 days upon request by the department.
- Obtain a Louisiana Air Permit in accordance with LAC 33:III.5111.B and C and in accordance with LAC 33:1.1701, before commencement of the construction of any new source.
- Obtain a permit modification in accordance with LAC 33:III.5111.B and C before commencement of any modification not specified in a compliance plan submitted under LAC 33:III.5109.D, if the modification will result in an increase in emissions of any toxic air pollutant or will create a new point source.
- Obtain written authorization from DEQ before commencement of any modification specified in a compliance plan submitted pursuant to LAC 33:III.5109.
- Submit letter: Due to the Office of Environmental Services, Permits Division concurrently with the submittal of the compliance plan. Indicate that the necessary permit modification (or new permit if no existing permit is in place) will be applied for by a date specified in the compliance schedule and request written authorization to construct; or, Submit permit application: Due to the Office of Environmental Services, Permits Division in accordance with LAC 33:III.5111.B, concurrently with the submittal of the compliance plan.
- Do not commence construction or modification of any major source without first obtaining written authorization from DEQ, as specified.
- Submit notification in writing: Due to the Office of Environmental Compliance, Surveillance Division not more than 60 days nor less than 30 days prior to initial start-up. Submit the anticipated date of the initial start-up.
- Submit notification in writing: Due to the Office of Environmental Compliance, Surveillance Division within 10 working days after the actual date of initial start-up of the source. Submit the actual date of initial start-up of the source.

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
Activity Number: PER20070040
Permit Number: 2343-V1
Air - Title V Regular Permit Major Mod

F0006 Energy Systems Unit

- 3 [LAC 33.III.5113.B.1] Ensure that all testing done to determine the emission of toxic air pollutants, upon request by the department, is conducted by qualified personnel.
- Provide necessary sampling and testing facilities, exclusive of instruments and sensing devices, as needed to properly determine the emission of toxic air pollutants, upon request of the department.
- Provide emission testing facilities as specified in LAC 33.III.5113.B.4 through e.
- 1 [LAC 33.III.5113.B.4]
 1 [LAC 33.III.5113.B.5]
 2 [LAC 33.III.5113.B.5]
- Analyze samples and determine emissions within 30 days after each emission test has been completed.
- Submit certified letter: Due to the Office of Environmental Assessment, Environmental Technology Division before the close of business on the 45th day following the completion of the emission test. Report the determinations of the emission test.
- Equipment/operational data recordkeeping by electronic or hard copy upon each occurrence of emissions testing. Retain records of emission test results and other data needed to determine emissions. Retained records at the source, or at an alternate location approved by DEQ for a minimum of two years, and make available upon request for inspection by DEQ.
- Submit notification: Due to the Office of Environmental Assessment, Environmental Technology Division at least 30 days before the emission test. Submit notification of emission test to allow DEQ the opportunity to have an observer present during the test.
- Maintain and operate each monitoring system in a manner consistent with good air pollution control practices for minimizing emissions. Repair or adjust any breakdown or malfunction of the monitoring system as soon as practicable after its occurrence.
- Conduct performance evaluation of the monitoring system when required at any other time requested by DEQ.
- Submit notification in writing: Due to the Office of Environmental Assessment, Environmental Technology Division at least 30 days before a performance evaluation of the monitoring system is to begin.
- Submit performance evaluation report: Due to the Office of Environmental Assessment, Environmental Technology Division within 60 days of the monitoring system performance evaluation.
- Install a monitoring system on each effluent, when monitoring is required and the effluents from a single source, or from two or more sources subject to the same emission standards, are combined before being released to the atmosphere. If two or more sources are not subject to the same emission standards, install a separate monitoring system on each effluent, unless otherwise specified. If the applicable standard is a mass emission standard and the effluent from one source is released to the atmosphere through more than one point, install a monitoring system at each emission point unless DEQ approves the installation of fewer systems.
- Evaluate the performance of continuous monitoring systems, upon request by DEQ, in accordance with the requirements and procedures contained in the applicable performance specification of 40 CFR Part 60, appendix B.
- Submit report: Due to DEQ within 60 days of the performance evaluation of the CMS, if requested. Furnish DEQ with two or more copies of a written report of the test results within 60 days.
- Install all continuous monitoring systems or monitoring devices to make representative measurements under variable process or operating parameters, if required to install a CMS.
- Collect and reduce all data as specified in LAC 33.III.5113.C.5.e.i and ii, if required to install a CMS.
- Submit plan: Due to the Office of Environmental Assessment, Environmental Technology Division within 90 days after DEQ requests either the initial plan or an updated plan, if required by DEQ to install a continuous monitoring system. Submit for approval a plan describing the affected sources and the methods for ensuring compliance with the continuous monitoring system.

SPECIFIC REQUIREMENTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

4F0006 Energy Systems Unit

- 35 [LAC 33:III.5113.C.7] Maintain records of monitoring data, monitoring system calibration checks, and the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative. Maintain these records at the source, or at an alternative location approved by DEQ, for a minimum of three years and make available, upon request, for inspection by DEQ.
- An individual or company contracted to perform a demolition or renovation activity which disturbs RACM must be recognized by the Licensing Board for Contractors to perform asbestos abatement, and shall meet the requirements of LAC 33:III.5151.F.2 and F.3 for each demolition or renovation activity.
- 36 [LAC 33:III.5151.F.1.] Activate the preplanned abatement strategy listed in LAC 33:III.5611. Table 5 when the administrative authority declares an Air Pollution Alert.
- 37 [LAC 33:III.5609.A.1.b] Activate the preplanned strategy listed in LAC 33:III.5611. Table 6 when the administrative authority declares an Air Pollution Warning.
- 38 [LAC 33:III.5609.A.2.b] Activate the preplanned abatement strategy listed in LAC 33:III.5611. Table 7 when the administrative authority declares an Air Pollution Emergency.
- 39 [LAC 33:III.5609.A.3.b] Prepare standby plans for the reduction of emissions during periods of Air Pollution Alert, Air Pollution Warning and Air Pollution Emergency.
- 40 [LAC 33:III.5609.A] Design standby plans to reduce or eliminate emissions in accordance with the objectives as set forth in LAC 33:III.5611. Tables 5, 6, and 7.
- 41 [LAC 33:III.5901.A] Comply with the provisions in 40 CFR 68, except as specified in LAC 33:III.5901.
- 42 [LAC 33:III.5907] Identify hazards that may result from accidental releases of the substances listed in 40 CFR 68.130, Table 59.0 of LAC 33:III.5907, or Table 59.1 of LAC 33:III.5913 using appropriate hazard assessment techniques, design and maintain a safe facility, and minimize the off-site consequences of accidental releases of such substances that do occur.
- 43 [LAC 33:III.5911.C] Submit amended registration: Due to the Department of Environmental Quality, Office of Environmental Compliance, Surveillance Division within 60 days after the information in the submitted registration is no longer accurate.
- 44 [LAC 33:III.919.D] Submit Emission Inventory (EI)/Annual Emissions Statement: Due annually, by the 31st of March for the period January 1 to December 31 of the previous year. Submit emission inventory data in the format specified by the Office of Environmental Assessment, Environmental Evaluation Division. Include all data applicable to the emissions source(s), as specified in LAC 33:III.919.A-D.
- 45 [LAC 33:III.927] Report the unauthorized discharge of any air pollutant into the atmosphere in accordance with LAC 33:1 Chapter 39, Notification Regulations and Procedures for Unauthorized Discharges. Submit written reports to the department pursuant to LAC 33:1.3925. Submit timely and appropriate follow-up reports detailing methods and procedures to be used to prevent similar atmospheric releases.

INVENTORIES

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

Object Item Inventory:

ID	Description	Tank Volume	Max. Operating Rate	Normal Operating Rate	Contents	Operating Time
IT0334	185A - 185A -- No. 1 Water Treating Sulfuric Acid Storage Tank D2450R	17487 gallons	5000 gallons/hr	237250 gallons/yr	Sulfuric Acid	8760 hr/yr (All Year)
IT0335	1150 - 1150 -- GTG/HRS (gas turbine generator/heat recovery steam generator) Stack - East		2023 MM BTU/hr	2023 MM BTU/hr		8560 hr/yr (All Year)
IT0336	1151 - 1151 -- GTG/HRS (gas turbine generator/heat recovery steam generator) Stack - West		2023 MM BTU/hr	2023 MM BTU/hr		8560 hr/yr (All Year)
IT0337	1152 - RO Sulfuric Acid Storage Tank D-4248	12955 gallons	5000 gallons/hr	114244 gallons/yr	93% Sulfuric Acid	8760 hr/yr (All Year)
IT0338	3104 - 3104 -- No. 3 Steam Plant East Package Boiler	390 MM BTU/hr	370 MM BTU/hr	370 MM BTU/hr		8760 hr/yr (All Year)
IT0339	3105 - 3105 -- No. 3 Steam Plant West Package Boiler	390 MM BTU/hr	370 MM BTU/hr	370 MM BTU/hr		8760 hr/yr (All Year)
IT0847	3106 - EOC Dispatch Emergency Generator (Diesel)	335 horsepower	335 horsepower	335 horsepower		100 hr/yr (All Year)
G0006	196T - 196T -- Fugitives					8760 hr/yr (All Year)

Stack Information:

ID	Description	Velocity (ft/sec)	Flow Rate (cubic ft/min-actual)	Diameter (feet)	Discharge Area (square feet)	Height (feet)	Temperature (°F)
IT0334	185A - 185A -- No. 1 Water Treating Sulfuric Acid Storage Tank D2450R			.17		20	77
IT0335	1150 - 1150 -- GTG/HRS (gas turbine generator/heat recovery steam generator) Stack - East	64.58	986004	.18		140	228
IT0336	1151 - 1151 -- GTG/HRS (gas turbine generator/heat recovery steam generator) Stack - West	64.58	986004	.18		140	228
IT0337	1152 - 1152 -- RO Sulfuric Acid Storage Tank D-4248			.17		20	77
IT0338	3104 - 3104 -- No. 3 Steam Plant East Package Boiler	48	144765	.8		75	299
IT0339	3105 - 3105 -- No. 3 Steam Plant West Package Boiler	48	144765	.8		75	299
IT0847	3106 - EOC Dispatch Emergency Generator (Diesel)			.5		32.71	

relationships:

Object Item Groups:

ID	Group Type	Group Description
IF0006	Unit or Facility Wide	-

Group Membership:

NOTE: The UNF group relationship is not printed in this table. Every subject item is a member of the UNF group

Annual Maintenance Fee:

INVENTORIES

AI ID: 2083 - Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

Fee Number	Air Contaminant Source	Units Of Measure
j0	Steam Gen. Units Fuels with 0.7 percent S or Less (Rated Capacity)	500 1,000 Lbs/Hr
10	Co-Generation (Capital Cost)	1200 \$100,000

Codes:

21	Plastics materials and resins	A12083
39	Industrial organic chemicals, nec	A12083
39	Combination utilities, nec	A12083
31	Steam and air conditioning supply	A12083

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1
Air - Title V Regular Permit Major Mod

Subject Item	CO			NOx			PM10			SO2			VOC		
	Avg lb/hr	Max lb/hr	Tons/Year												
rgy Systems Unit															
EQT 0335	198.60	198.60	850.20	259.10	259.10	1108.90	18.30	78.40	1.4	1.4	6.2	10.80	10.80	46.20	
EQT 0336	198.60	198.60	850.20	259.10	259.10	1108.90	18.30	78.40	1.4	1.4	6.2	10.80	10.80	46.20	
EQT 0338	30.47	32.12	133.46	37.00	39.00	162.06	2.76	2.91	12.08	0.22	0.23	0.95	2.00	2.10	8.74
EQT 0339	30.47	32.12	133.46	37.00	39.00	162.06	2.76	2.91	12.08	0.22	0.23	0.95	2.00	2.10	8.74
EQT 0847	2.24	2.24	0.11	10.39	10.39	0.52	0.74	0.74	0.04	0.69	0.69	0.03	0.84	0.84	0.04
FUG 0006															
196T															

: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

Emission Rates Notes:

0335	PM10	Max lb/hr	From PSD-LA-590	Which Months: All Year
0335	PM10	Tons/Year	From PSD-LA-590	Which Months: All Year
0335	SO2	Max lb/hr	From PSD-LA-590	Which Months: All Year
0335	SO2	Tons/Year	From PSD-LA-590	Which Months: All Year
0335	NOx	Max lb/hr	From PSD-LA-590	Which Months: All Year
0335	NOx	Tons/Year	From PSD-LA-590	Which Months: All Year
0335	CO	Max lb/hr	From PSD-LA-590	Which Months: All Year
0335	CO	Tons/Year	From PSD-LA-590	Which Months: All Year
0335	VOC	Max lb/hr	From PSD-LA-590	Which Months: All Year
0335	VOC	Tons/Year	From PSD-LA-590	Which Months: All Year
0336	PM10	Max lb/hr	From PSD-LA-590	Which Months: All Year
0336	PM10	Tons/Year	From PSD-LA-590	Which Months: All Year
0336	SO2	Max lb/hr	From PSD-LA-590	Which Months: All Year
0336	SO2	Tons/Year	From PSD-LA-590	Which Months: All Year
0336	NOx	Max lb/hr	From PSD-LA-590	Which Months: All Year
0336	NOx	Tons/Year	From PSD-LA-590	Which Months: All Year
0336	CO	Max lb/hr	From PSD-LA-590	Which Months: All Year
0336	CO	Tons/Year	From PSD-LA-590	Which Months: All Year
0336	VOC	Max lb/hr	From PSD-LA-590	Which Months: All Year
0336	VOC	Tons/Year	From PSD-LA-590	Which Months: All Year

EMISSION RATES FOR CRITERIA POLLUTANTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

38	CO	Max lb/hr Tons/Year	From PSD-LA-707 From PSD-LA-707	Which Months: All Year Which Months: All Year
38	CO	Max lb/hr Tons/Year	From PSD-LA-707 From PSD-LA-707	Which Months: All Year Which Months: All Year
39	CO	Max lb/hr Tons/Year	From PSD-LA-707 From PSD-LA-707	Which Months: All Year Which Months: All Year
39	CO	Max lb/hr Tons/Year	From PSD-LA-707 From PSD-LA-707	Which Months: All Year Which Months: All Year

EMISSION RATES FOR TAP/HAP & OTHER POLLUTANTS

AI ID: 2083 - Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

Emission Pt.	Pollutant	Avg lb/hr	Max lb/hr	Tons/Year
EQT 0334 185A	Sulfuric acid	< 0.001	< 0.001	< 0.01
EQT 0335 1150	Ethylene oxide	< 0.01	< 0.01	< 0.01
	Formaldehyde	0.98	0.98	4.21
	n-butyl alcohol	< 0.01	< 0.01	0.01
EQT 0336 1151	Ethylene oxide	< 0.01	< 0.01	< 0.01
	Formaldehyde	0.98	0.98	4.21
	n-butyl alcohol	< 0.01	< 0.01	0.01
EQT 0337 1152	Sulfuric acid	< 0.001	< 0.001	< 0.01
EQT 0338 3104	Ethylene oxide	< 0.01	< 0.01	< 0.01
	n-butyl alcohol	< 0.01	< 0.01	0.01
EQT 0339 3105	Ethylene oxide	< 0.01	< 0.01	< 0.01
	n-butyl alcohol	< 0.01	< 0.01	0.01
FUG 0006 196T	Ethylene oxide	0.001	0.001	< 0.01
	Sulfuric acid	0.01	0.01	0.01
	n-butyl alcohol	0.001	0.001	< 0.01

Note: Emission rates in bold are from alternate scenarios and are not included in permitted totals unless otherwise noted in a footnote.

General Information

AI ID: 2083 Union Carbide Corp - St Charles Operations
 Activity Number: PER20070040
 Permit Number: 2343-V1
 Air - Title V Regular Permit Major Mod

Known As:	ID	Name	User Group	Start Date
	2520-00001	Union Carbide Corp - Taft Star Plant	CDS Number	01-03-1990
13-1421730		Federal Tax ID	Federal Tax ID	11-21-1999
LAD041561422		Union Carbide Corp SCO Taft/Star	Hazardous Waste Notification	08-18-1980
PMT/PC		GPPRA Baselines	Hazardous Waste Permitting	10-01-1997
LAD041561422		Union Carbide	Inactive & Abandoned Sites	06-08-1981
LA0000191		LPDES #	LPDES Permit #	05-22-2003
LAR10C313		LPDES #	LPDES Permit #	12-12-2004
LAR10C447		LPDES #	LPDES Permit #	12-12-2004
		Priority 1 Emergency Site	Priority 1 Emergency Site	07-18-2006
LA-2163-L01		Radioactive Material License	Radiation License Number	07-06-2001
2163		X-Ray Registration Number	Radiation X-ray Registration Number	11-21-1999
GD-089-1324		Site ID #	Solid Waste Facility No.	04-30-2001
17809		Union Carbide Chemicals & Plastics	TEMPO Merge	10-17-2001
19135		Dow Union Carbide - St Charles Operations	TEMPO Merge	06-30-2002
34610		Union Carbide Corp - Hahnville Plant	TEMPO Merge	10-17-2001
35033		Union Carbide Corp - Star Plant	TEMPO Merge	07-15-2001
3832		Union Carbide Corp	TEMPO Merge	11-01-2000
38779		Union Carbide Corp	TEMPO Merge	07-15-2001
38780		Union Carbide Corp	TEMPO Merge	07-15-2001
38882		Union Carbide Corp	TEMPO Merge	07-15-2001
44903		Union Carbide Corp Taft Plant	TEMPO Merge	07-22-2001
45881		Union Carbide Chemical & Plastics	TEMPO Merge	07-22-2001
8533		Union Carbide	TEMPO Merge	09-05-2001
89428		Dow Chemical	TEMPO Merge	11-07-2001
9651		Union Carbide Star	TEMPO Merge	10-17-2001
70057NNCRBHWY31		TRI #	Toxic Release Inventory	07-30-2004
45011610		UST Facility ID (from UST legacy data)	UST FID #	10-12-2002
			Main Phone:	9857834411
		Call Location:		
		9 Address:		
		ion of Front Gate:		
		355 Hwy 3142 Gile 28		
		Taft, LA 70057		
		PO Box 50		
		Hahnville, LA 700570050		
		29° 58' 56" 24 hundredths latitude, 90° 27' 20" 24 hundredths longitude, Coordinate Method: Address Matching-Other, Coordinate Datum: NAD83		

General Information

AI ID: 2083 Union Carbide Corp - St Charles Operations

Activity Number: PER20070040

Permit Number: 2343-V1

Air - Title V Regular Permit Major Mod

People:	Name	Mailing Address	Phone (Type)	Relationship
	Tim Brady	PO Box 50 Hahnville, LA 700570050	BRADYTD@DOW.C	Emission Inventory Contact for
	Tim Brady	PO Box 50 Hahnville, LA 700570050	9857834B13 (WP)	Emission Inventory Contact for
	Responsible Care Leader	PO Box 50 Hahnville, LA 700570050	9857834411 (WP)	Responsible Official for
	Responsible Care Leader	PO Box 50 Hahnville, LA 700570050	9857834411 (WP)	Air Permit Contact For
	Barry Minnich	PO Box 50 Hahnville, LA 700570050	9856333446 (WP)	Katrina Response Contact for
	Steve Robinson	PO Box 50 Hahnville, LA 700570050	9857834642 (WP)	Radiation Safety Officer for
Organizations:	Name	Address	Phone (Type)	Relationship
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Owns
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Operates
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Accident Prevention Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Solid Waste Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Air Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Radiation Registration Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Radiation License Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Water Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		UST Billing Party for
	Union Carbide Corp	PO Box 50 Hahnville, LA 700570050		Emission Inventory Billing Party

Notes:
325110 Petrochemical Manufacturing

This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Review the information contained in this document for accuracy and completeness. If any changes are required or if you have questions regarding this document, you may contact Mr. Ferrand, Environmental Assistance Division, at (225) 219-3247 or email your changes to facupdate@la.gov.

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

Union Carbide Corp
Union Carbide Corp - St Charles Operations
Taft, St. Charles Parish, Louisiana
Agency Interest Number: 2083
Activity Number: PER20070040
Proposed Permit Number: 2343-V1

I. APPLICANT:

Company:
Union Carbide Corporation.

P. O. Box 50, Hahnville, LA 70057

Facility:
St. Charles Operations, Energy Systems Unit
355 Hwy. 3142 Gate 28
Approximately 2 miles west of Hahnville, on the west bank of the Mississippi River,
off LA Highway 3142 at corner of LA Hwy 18
Approximate UTM coordinates are 746.184 km East and 3,319.222 km North, Zone
15.

II. FACILITY AND CURRENT PERMIT STATUS:

Union Carbide Corporation, a subsidiary of the Dow Chemical Company, owns and operates a chemical manufacturing facility in St. Charles Parish near Taft. The St. Charles Operations is an integrated petrochemical manufacturing complex, converting petroleum-based raw materials into a variety of basic building block, intermediate chemicals and plastics. The products from this facility, eventually wind up in thousands of everyday household, business, and consumer products. The facility as a whole started operation before 1969. The Energy Systems Unit currently operates under PSD-LA-590 issued September 22, 1995 for the Cogeneration Unit, as well as TV Permit No. 2343-V0 and PSD-LA-707 (for Boilers, Emission Points 3104 and 3105), both issued June 27, 2005.

**Union Carbide Corp
Union Carbide Corp - St Charles Operations
Taft, St. Charles Parish, Louisiana
Agency Interest Number: 2083**

Union Carbide Corp - St Charles Operations is a designated Part 70 source. Several Part 70 permits have been issued to the operating units within the Unit. These include:

Permit No.	Unit or Source	Date Issued
2814-V0	Methyl Glycol Ethers (MGE) Plant	10/31/2002*
1912-V0	Specialty Products Unit	3/12/2003*
2350-V3	LP-3 Unit	12/30/2003
2858-V0	PXC Unit	7/8/2004
2422-V1	Olefins I & II	9/30/2004
2343-V0	Energy Systems	6/27/2005
2421-V0	Amines Plants	11/10/2005
2104-V1	Environmental Protection Dept. (EPD)	2/16/2006
2656-V0	Olefins Distribution/Site Logistics Units	3/13/2006
2214-V0	LP-6	3/27/2006
477-V0	Unit 5 (Amines I)	6/08/2006
2876-V1	Unit 9	8/10/2006
476-V1	Oxide I	1/30/2007
513-V2	Acrylics I	6/15/2007
1909-V1	Higher Glycols Plant	6/18/2007
2446-V1	Unit 8 (EXP)	7/3/2007
373-V1	Oxide II	7/5/2007
2254-V0	Acrylics 2	7/20/2007
2257-V4	TB1 and TB2 Units	10/9/2007

* A timely permit renewal application submitted

In addition, PSD-LA-590 issued September 22, 1995 for the Cogeneration Unit, as well as PSD-LA-707 issued June 27, 2005 for Boilers, Emission Points 3104 and 3105 were also issued to the complex.

I. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application and Emission Inventory Questionnaire dated November 9, 2007, was submitted by Union Carbide Corp. requesting a Part 70 operating permit modification.

**Union Carbide Corp
Union Carbide Corp - St Charles Operations
Taft, St. Charles Parish, Louisiana
Agency Interest Number: 2083**

Project

This permit modification includes the following updates:

- Site Remediation MACT has been incorporated into the permit.
- UCC is requesting the removal of NESHAP Subpart DDDDD requirements from the permit as the regulation has been vacated.
- The addition of a new diesel-fired generator for the Emergency Operations Center (EOC), Emission Point 3106. It will only be used when there is a loss of power and for required testing and maintenance. It will be an emergency engine that is subject to NSPS Subpart III. The generator addition constitutes a Title I modification which triggers significant modification procedures, including public notice of the proposed permit.
- The addition of a diesel tank for the EOC generator as insignificant activity.

Proposed Permit

Permit 2343-V1 will be a significant modification to the Part 70 operating permit 2343-V0 for the Energy Systems Unit.

Permitted Air Emissions

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	180.96	181.00	+0.04
SO ₂	14.30	14.33	+0.03
NO _X	2541.92	2542.44	+0.52
CO	1967.32	1967.43	+0.11
VOC	111.14	111.18*	+0.04
Sulfuric Acid	0.01	0.01	-

*Includes 8.50 TPY of LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs).

IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

Union Carbide Corp
Union Carbide Corp - St Charles Operations
Taft, St. Charles Parish, Louisiana
Agency Interest Number: 2083

Applicability and Exemptions of Selected Subject Items

For the applicability and exemptions of selected subject items at the unit, refer to Section X - Table 1. Applicable Louisiana and Federal Air Quality Requirements, and Section XI -Table 2. Explanation for Exemption Status or Non-Applicability of a Source, of the proposed permit.

Prevention of Significant Deterioration/Nonattainment Review

PSD review is not required with this modification.

Streamlined Equipment Leak Monitoring Program

It is required that the Energy Systems Unit comply with a streamlined equipment leak monitoring program. Compliance with the streamlined program shall serve to comply with each of the fugitive emission monitoring programs being streamlined.

For the Energy Systems Unit, fugitive emissions are subject to the requirements of LAC 33:III.2121, and the fugitive emissions shall be monitored as required by this program LA MACT Determination for Non-HON Equipment Leaks (Streamlined Fugitive Emissions Program).

Unit or Plant Site	Program Being Streamlined	Stream Applicability	Overall Most Stringent Program
UCC- Energy Systems Unit	LAC 33:III.5109 – Louisiana MACT Determination for Non-HON Sources	≥ 5% VOTAP	LAC 33:III.5109 – Louisiana MACT Determination for Non-HON Sources
	LAC 33:III.2121 –	≥ 10% VOTAP	

MACT Requirements

The applicable MACT requirements for the different sources are described in the Specific Requirements section of the proposed permit.

Air Quality Analysis

None

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping

**Union Carbide Corp
Union Carbide Corp - St Charles Operations
Taft, St. Charles Parish, Louisiana
Agency Interest Number: 2083**

requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

None

VI. PERIODIC MONITORING

The following periodic monitoring is done at the facility:

- Quarterly monitoring of leaks to comply with the LDAR program for fugitive emissions at the facility, as per Louisiana Non-HON MACT.
- Monitoring gas turbine generator/heat recovery steam generator (GTG/HRSG) and Package Boilers for bypass flow of vent streams with flow indicator every 15 minutes and by visual inspection monthly, as per 40 CFR 60 Subpart RRR.
- Monitoring of NOx emissions from Package Boilers by Continuous Monitoring System (CMS) as per 40 CFR Subpart Db.

VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of

**Union Carbide Corp
Union Carbide Corp - St Charles Operations
Taft, St. Charles Parish, Louisiana
Agency Interest Number: 2083**

Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.